

DOCUMENT RESUME

ED 109 072

95

SP 009 319

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TITLE Teacher Attitudes and Attitude Change. Volume 1: A Handbook for Educational Practitioners.
INSTITUTION California Univ., Los Angeles. Teacher Education Lab.
SPONS AGENCY National Inst. of Education (DHEW), Washington, D.C.
PUB DATE 75
GRANT NIE-G-74-0064
NOTE 67p.; For related documents, see SP 009 320 and 321

EDRS PRICE MF-\$0.76 HC-\$3.32 PLUS POSTAGE
DESCRIPTORS Adoption (Ideas); Change Agents; *Changing Attitudes; Curriculum; *Educational Administration; Educational Innovation; Educational Practice; *Educational Research; *Effective Teaching; Student Characteristics; *Teacher Attitudes; Teacher Role

ABSTRACT

This five-part report comprises a synthesis and distillation of research findings on teacher attitudes and the conditions under which they may be expected to change. The purpose of the study is to provide guidelines for practitioners interested in effecting changes in those teacher attitudes which may interfere with effective schooling efforts. Part 1 presents a brief overview of issues related to the whole field of attitude change, and the role of the teacher as a change agent. Part 2 discusses the problems which relate to teacher attitudes toward subject matter content and the introduction of new content in existing and new subject-matter courses. Three main curriculum areas are also defined in this section: a) academic subject matter, b) career (or vocational) education, and c) nontraditional curricula. Part 3 examines the ways that characteristics of students affect their teachers' attitudes toward them, and subsequently predispose differential treatment and sets of expectations on the part of the teachers. Part 4 deals with teacher attitudes toward organizational and instructional innovations. Topics included in this section are a) open education, b) staffing, c) scheduling, d) motivational procedures, e) individualization, f) behavior objectives, g) behavior modification, and h) education technology. Part 5 provides a brief summary statement. (Author/JS)

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TEACHER ATTITUDES AND ATTITUDE CHANGE

Volume I: A Handbook for Educational Practitioners

by

Carolyn Stern and Evan R. Keislar

Prepared for the National Institute of Education
Interpretive Studies Series
Grant No. NIE-74-0064

A product of the
TEACHER EDUCATION LABORATORY
University of California, Los Angeles

1975

TEACHER ATTITUDES AND ATTITUDE CHANGE

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INTRODUCTION

Teacher Attitudes and Attitude Change consists of three volumes. In the first volume we have formulated a range of practical problems which are of concern to educators charged with selecting teachers for elementary and secondary schools and/or increasing their effectiveness. To address these issues we have first summarized the recent research and have then set forth some procedural guidelines, inferentially drawn from experimental and demonstration studies. This first volume is service-oriented, and thus may seem more didactic than the nature of the evidential support warrants. There are admittedly some "leaps of faith" but these are based on the experienced judgments of the authors, consistently tempered by a humanistic orientation.

In the second volume we have provided a more extensive, thorough-going review of the voluminous literature of experimental investigations, pilot-studies, and demonstration projects which have explored these issues in more or less controlled situations. Here we try to report the research findings unjudgmentally, and perhaps indicate areas where research still has been unable to provide definitive solutions. It is addressed primarily to a research-oriented population, and hence maintains a more objective, impartial tone.

The third volume consists of a brief introduction to the procedures employed in conducting the review of the literature, followed by a listing of the titles cited in both the first and second volumes. In the interest of reducing the paper load to a minimum, each item is presented in the most abbreviated form possible, yet one which will permit those desiring further elaboration to locate the original source.

It should be noted at the outset that these volumes deal with but one of the many factors involved in the teaching environment. The focus here is upon the *attitudes* of teachers and the conditions under which they may be expected to change. To define more precisely the nature of the materials and the rationale for their inclusion, the first chapter of Volume II includes a discussion dealing with the nature of attitudes, the ways attitudes are assessed, and the values and limitations which information about attitudes on educational questions have for both individuals and groups.

Over 1000 titles are cited in Volume II. These were gleaned from a survey of approximately 5000 references concerned with teacher attitudes. Of these the most significant theoretical and empirical studies were drawn upon to provide the guidelines for delineating and organizing the materials in substantive topics or areas. It is hoped that the different approaches adopted in Volume I and Volume II extend the range of usefulness of the total effort.

Volume I comprises a synthesis and distillation of the findings reported in Volume II. Prepared after the research survey and analysis

had been completed, it is actually the final product of this review task. The rationale for giving it priority in the total work is that it epitomizes the purpose of the current assignment, which is to provide guidelines for practitioners interested in effecting changes in those teacher attitudes which may serve to inhibit or interfere with effective schooling efforts. It is designed for teacher trainers, supervisors, school administrators, and others in the front line who need to make immediate decisions with respect to certain critical issues, or "attitude-objects." And many of the insights can be expected to have value for teachers as well.

While the research review was extremely important in describing the various issues to be addressed, the more immediate inputs were derived from two conferences. The participants in these meetings included representatives from several interested groups, including educational researchers, professors of education, teacher trainers, local educational agency administrators, and teachers. After studying the questions raised in these meetings and in the research literature, several categories of issues were delineated. These form the basis of the organization of this report.

The first area of concern is the attitude of teachers toward change itself. No matter what the level of change, whether it is simply the introduction of a new textbook, or one involving deep-rooted personality characteristics, such as a lifelong attitude toward a particular ethnic group, there is always some degree of resistance. The first chapter therefore presents a brief overview of issues related to the whole field of attitude change, and the role of the teacher as a change agent.

The first section of Chapter 2 deals with attitude toward change in curricular content, generally. There are certain problems which relate to teacher attitudes toward subject matter content and the introduction of new content, whether in existing or new subject matter courses. For the remainder of this chapter, we have defined three main curriculum areas: academic subject matter, career (or vocational) education, and non-traditional curricula.

The attitudes of teachers toward attributes of students is another broad area which has recently come under research scrutiny. In Chapter 3 we examine the ways that characteristics of students, such as ethnicity, socioeconomic status, divergent speech patterns, level of ability, gender, and classroom behavior, affect their teachers' attitudes toward them, and subsequently predispose differential treatment and sets of expectations.

Chapter 4 deals with teacher attitudes toward a variety of educational innovations. Many of these were designed specifically to address problems of minority children in inner city schools, but the major focus here is the attitude of teachers toward instituting a great variety of educational changes. To provide a framework for the diversity of

materials, we have decided to form two categories: organizational innovations and instructional innovations. Under the first rubric we have included Open Education, Staffing, Scheduling, and Motivational Procedures; under the second are Individualization, Behavioral Objectives and Behavior Modification, and Educational Technology.

A brief Summary Statement provides the concluding Chapter 5.

Across all the chapters we have tried wherever possible to maintain a similar format. Thus we begin the chapters with a general discussion of the topic. Then, for each of the subtopics, there is a section in which we present the Definition of the Problem. This is a type of status evaluation of what research has compiled on the question at issue. The second section, Effecting Attitude Change, reports the research which has been designed to modify teachers' attitudes toward that issue. These two sections are replete with references to the literature, but even so, they are not at all exhaustive. Neither are they necessarily the best examples of work in a particular area, but simply a random sampling of the available research. More comprehensive coverage will be found in Volume II, for those who would like to pursue the subject in greater depth.

The third section, Summary Guidelines for Effecting Attitude Change, is based on a synthesis of the research finding.

One word of caution. While we have tried to present the research objectively, and to draw logical and unprejudiced inferences for the "Guidelines" sections, we must emphasize that in many cases the evidence is far from definitive. Occasionally different investigators have arrived at seemingly contradictory conclusions. In such cases we have tried to determine the basis for the discrepancy and to interpret and reconcile apparent differences. Overall, the perceptive reader will discern a basic humanistic orientation to educational practice.

CHAPTER 1

ATTITUDE TOWARD CHANGE

Definition of Problem

Human reaction and resistance to change in social and institutional settings has been extensively studied by sociologists, many of whom have been concerned with the conditions of change in the school setting. Cohen and Bredo (1974) at Stanford University are currently engaged in careful longitudinal studies of organizational change in the schools. They are using techniques of participant observation to document the process by which changes are brought about in interpersonal relationships, and how these changes affect teacher attitudes toward their various functions or roles as teachers.

An early investigation (*Administrators' and teachers' reactions to educational innovations*, 1967) surveyed attitudes of 307 administrators and 330 teachers and reported that all respondents were receptive to educational change. Hood and Hayes (1967) also indicated that there was a wide-based interest in new developments in education. These positive attitudes do not always prevail when actual participation in an innovative program is involved.

The attitude toward an educational issue is extremely influential in either facilitating or hindering the installation of a change relative to that issue (Amarel et al. 1973). Certain types of changes are more readily accepted. For instance, Dohnmann (1970) reports that teachers favor innovations which will reduce class size, but may oppose team teaching or differential staffing. Goodwin (1973) points out that teachers in schools with a majority of Black students are less likely to disapprove of parent participation and other types of organizational innovations. But, and this is most true for Black teachers, they are generally opposed to any change which would diminish their custodial control or relax classroom discipline.

Attitudes toward change are also related to characteristics of teachers. Thus, Ryans (1972) reports that teachers who come from above-average as well as those from below-average income groups are more open to innovation, change, and liberalism in educational practices than are teachers from the middle income category.

The grade level of the teacher is also important. Effler (1972) found that, while on the whole elementary grade teachers and administrators were markedly change oriented, the administrators were more favorable to change than the teachers, and the upper grade teachers more so than the lower grade teachers. It is interesting to note that both teachers and administrators were in favor of inservice training but wanted this experience to be carried out by qualified teachers and/or administrators, rather than by outside academic professors. They also

indicated that they wanted the inservice to occur in their own schools, and during regular school hours. In addition, they felt that the inservice training should include provision for released time to enable them to visit successful innovative classrooms.

Teachers in urban schools, where educational failures are more conspicuous, are more receptive to change than those in rural environments. Teachers in small towns tend to represent the attitudes and beliefs of their community, and these are most likely to be conservative (Hughes and Spence, 1971). And Sorensen (1973) has found that teacher training institutions are more conservative in developing new curricula than are the public schools themselves.

If educational change is defined in terms of the rate of implementation of innovative recommendations (Carpenter, 1970), there are several factors which need to be considered: the nature of the recommendations, the characteristics of the existing program, the procedures or process variables designed to institute the innovation, and the attitude of the faculty and the community toward the recommendations. Of these the latter is the most critical.

It has become increasingly apparent that no innovation can hope to succeed without the active cooperation of the teachers (e.g. cf. Mickelson and Armstrong, 1973). Brumbaugh and Christ (1972) are concerned that consultants, who often serve as the change agents, frequently are unaware of, or overlook, important characteristics of the "target" system. That is, the innovation is "laid on" the local educational staff without consultation or preparation. Often teacher training programs can be effective in changing attitudes toward a particular innovation (Vickrey, 1972).

Perhaps more important than any training program, or at least an essential ingredient of such training, is the development of motivation for active participation in a change program. Rafky and Beckerman (1971) emphasize that a teacher's willingness to devote a great deal of time and effort to implementing an innovative practice is dependent upon the perception of some valued outcome. The need to focus on incentives for change (Pincus, 1974) seems obvious, yet little attention has been accorded this important basis for facilitating teacher involvement. While this can be described as "self-interest," it is not necessarily self-centered. To teachers who have known years of frustration because they have been unable to achieve their academic goals for their students, a new technique which produces demonstrable gains in basic skills can be highly motivating. Helsel (1972) has identified two important characteristics of a successful innovation - that it be compatible to the teacher's theoretical orientation, and that it demonstrate an advantage over existing methods.

Another effective incentive for teachers to adopt an innovation is that it offer greater professional satisfaction. Peterfreund et al.

(1970) feel that teachers have favorable attitudes toward changes which provide them a greater share in the decision-making process.

Effecting Attitude Change

Almost all research and demonstration programs designed to effect changes in teacher attitudes address themselves to a certain category of educational activities or content. These will be described in the following chapters, under the appropriate rubrics.

CHAPTER 2

ATTITUDE TOWARD CURRICULUM

Curriculum Change

Definition of Problem: A negative attitude toward change is one of the most frequent stumbling blocks in the successful implementation of an innovative program. People tend to cling to that which is familiar and comfortable. Thus it is natural for many teachers to resent and overtly or covertly to sabotage the effective introduction of a new curriculum. Even more, teachers are loath to adopt a teaching style which is appreciably different from that in which they were trained, or to which they have become accustomed. Here we are concerned with the attitude toward change *per se*, rather than with the content or substance of the change.

There is persuasive evidence that teachers who are involved in curriculum planning have more favorable attitudes toward the implementation of the new content and procedures than those who are required to present programs over which they have no control (Langenbach, 1972; Beauchamp, 1974).

Frequently teachers in schools with declining enrollments are "excessed." If they have tenure, and many in the inner city school do, they may be assigned to clerical tasks in the administrative office, or to playground duty. Teachers in this situation may "opt" for a new program even though they are inherently opposed to it (Stern, 1974)¹.

Effecting Attitude Change: Experience in installing extensive curriculum modifications in 53 schools in New York and Pennsylvania is reported by Mahan and Gill (1972). These authors provide a checklist which documents each step in the installation process. They also provide references and resource materials for effecting attitudinal change. While they stress the need to select new programs carefully, to conduct workshops, to provide extra assistance in the first stages of a new program's adoption, and to conduct on-going evaluations of the effectiveness of the new curricula, their major emphasis is on the need to secure the cooperation of the teachers. Careful planning and attention to the opinions and attitudes of teachers involved in the change process are absolutely essential (Mahan and Gill, 1972).

¹There are a few references in Volume I which have not been included in Volume III. For this citation, see M. G. Cline, *Education as Experimentation*, Abt Associates, Cambridge, Massachusetts, 1974.)

Academic Curricula - Mathematics

Definition of Problem: Approximately one-third of all elementary grade teachers have a negative attitude toward mathematics (Aiken, 1970). Yet every teacher from kindergarten through sixth grade is expected to be responsible for the total instructional curriculum, of which math is a major component. This situation raises three separate questions:

- Does a teacher's positive or negative attitude toward math influence the degree to which students are facilitated or deterred in learning the subject, or in developing a positive attitude toward it?
- Can teachers who are barely comfortable in teaching traditional arithmetic be expected to incorporate a new unit on the metric system?
- Can teachers' negative attitudes toward math be changed?

Many researchers have been attempting to clarify the relationship between teacher attitudes and student attitudes and achievement. This is of particular concern in the teaching of math for several reasons. In the first place, most teachers of elementary grade children are women, and women tend to feel less comfortable and generally more negative toward this discipline. Furthermore, if negative teacher attitudes can be picked up by children, it is in the early years, when they are first taught these concepts, that the negative affect can have the greatest impact.

It has been extremely difficult to demonstrate a consistent correlation either between teacher and student attitude and/or achievement (Anttonen and Deighan, 1971; Brager, 1970; Keane, 1968; and Van de Walle, 1973). On the other hand, there is a significant increase in negativity toward arithmetic in students from the third to the sixth grade (Anttonen and Deighan, 1971). It could be that as the subject becomes more difficult for more children, they begin to feel frustrated and hence negative toward it. But it is also quite possible that this finding merely demonstrates the cumulative impact of instruction by teachers with negative attitudes.

More fine-grained analyses of these relationships seem to indicate that, while a teacher with a positive attitude may have little influence on student attitude and achievement, the teacher with a negative attitude does have an adverse effect (Aiken, 1970).

Some researchers have attempted to determine what types of teachers tend to have positive attitudes toward mathematics. Van de Walle (1973) found that teachers with a relaxed, informal perception of mathematics instruction are more successful with third grade students, but this characteristic has little impact at the sixth grade level. The

number of math courses taken by the teacher is usually a safe indicator of competence in the subject. Higdon (1972) confirmed that the teacher who had completed more than the minimum number of required math courses in college has a more positive attitude than the teacher with the fewest courses possible.

To summarize, we know that a great many teachers have negative attitudes toward mathematics, and that the attitudes of children toward this subject become progressively negative with years of exposure. Although there is no hard basis for concluding that teacher attitudes are correlated with student attitudes and achievement, teachers with negative attitudes can have a deleterious effect on both attitude and learning of students.

Effecting Attitude Change: Workshops designed to change teacher attitudes toward mathematics have had little positive impact (Aiken, 1970). However, where the training has focused on increasing the teachers' skills in math (e.g. Marshall and Fischbach, 1972; Shulte, 1967), positive attitude changes have been obtained.

Training programs concerned with alleviating anxieties generated by modern math, such as that reported by Singleton (1971), indicate success in increasing knowledge and, concomitantly, decreasing negative attitudes. A number of studies (e.g. Long and Riedesel, 1967; Hall et al. 1969) have used computer-assisted-instruction technology in providing inservice training in new math concepts. These have demonstrated advantages not only in geographically difficult to reach areas, but also in their responsiveness to the individual needs of teachers with various levels of academic math training.

Academic Curricula - Reading

Definition of Problem: In the teaching of reading it is not the subject itself which creates the emotional overload. Evidently most teachers have favorable attitudes toward reading and are imbued with the importance of teaching this basic academic skill. It is, rather, the technique or model adopted for the instruction of reading which may precipitate negative attitudes. Because reading has such an important priority in intervention programs, experimental innovations based on a wide diversity of (often conflicting) ideologies have been introduced.

Two examples of problems in this area are:

- A teacher is asked to adopt a reading program which embodies a philosophical approach which is antithetical to the one being used, or for which inadequate training and preparation has been provided.
- A teacher in the kindergarten-primary grades is expected to teach a structured reading curriculum; this runs counter to an espoused early childhood developmental orientation.

There are many people, professional educators and community representatives alike, who feel that the key to successful reading instruction lies in the teacher's attitude toward the children taught (e.g. Vick, 1972). The whole area of teacher expectations of students is dealt with more fully in a later section. With reference to reading, there are a number of writers who stress the importance of teachers' attitudes toward students' potential for learning this subject. For example, Davino (1970) and Emeruwa (1970) both point up the importance of knowing and respecting the life style of the students. They insist that it is necessary for the teacher to maintain empathy for the personal needs of both students and community. Although it is important to remain open-minded concerning the techniques of instruction, they feel that the personal considerations are the over-riding ones.

Few studies attempt to relate the teacher's attitude toward reading and the attitude or achievement of the students. In general, there is no evidence of a relationship between negative teacher behavior or attitudes and first grade reading scores (Anderson, 1972). Where studies compare the effectiveness of one reading technique with another, the feeling and bias of the teacher is often found to be the most important variable. Also, teachers who become ego-involved in demonstrating a favored experimental approach, as contrasted with an unspecified "traditional" model, tend to report subjectively that the program was successful, even in the absence of substantiating performance data. In the final analysis, most teachers tend to have a favorable attitude toward the reading program which produces measurable gains in their students (e.g. Clark, 1972; Moodie and Hoen, 1972).

Effecting Attitude Change: Where it is necessary to obtain a teacher's cooperation in implementing a new instructional technique, inservice workshops are frequently employed. In some cases, favorable results have been reported. For example, Askov (1971) found that teachers given a special program stressing individualized reading instruction developed more favorable attitudes toward this approach. Also, Ellis and Rintoul (1971) indicated that such workshops generated greater interest in reading in both students and teachers, although there were no measurable differences in responses to attitude inventory questions.

Similar findings were reported in a more extensive attitude change program (*A plan to prevent reading disabilities*, 1972). The stated objectives of this inservice training were to develop favorable attitudes toward diagnostic reading techniques, to develop professional skill in screening students and identifying problem areas, and to extend the teachers' ability to select appropriate diagnostic procedures to correct the deficiency. Teachers were given 27 hours of released school time to complete the training. There was extensive involvement of parents and community through opportunities to participate in the conference sessions.

In spite of what seems a total commitment approach, a posttest

on remedial reading techniques indicated that the teachers did not achieve the cognitive goals of the training. On the other hand, an "upgrading of the district reading program" was reported.

Other investigators found that short in-service experiences had little effect. Maynard (1973) studied the impact of a four-week reading practicum and found no relationship between the attitudes of the trainees and either reading gains or attitudes of students. Additionally, the attitudes of the student teachers who participated in the practicum were not appreciably different from student teachers who had a regular course.

Academic Curricula - Science

Definition of Problem: The attitude of science teachers toward their subject has rarely been investigated (Watson, 1963). In the main, researchers have been concerned with determining the personality characteristics which distinguish the successful science teacher. Of relevance here would be such questions as:

- Are there attitude-related characteristics which can help identify the person who has an optimum chance for success as a science teacher?
- Does a person with extremely high competence in science make a better teacher than one with average science ability?

In his comprehensive study of teacher characteristics, Ryans (1960) reported that science and math teachers were the most conservative teachers in the school system. By implication, this would mean that they would be the most resistant to innovation and attitudinal change. A more recent study (Main, 1971) of science teachers found them to be generally more reserved, calm, and mature; they also appeared to be more serious and taciturn. In contrast to other teachers, they were more self-sufficient and resourceful.

Additional information from the Main (1971) study indicated that, within the group of science teachers, females were more outgoing and warm-hearted while males were tough-minded, self-reliant, and realistic. Another investigation into the characteristics of female science teachers (Shanks, 1969) noted that those who did best on a concepts-of-science test possessed an analytical, cognitive style and were goal-oriented, self-directed persons of firm character and above-average intelligence. In terms of their responses on the Strong Vocational Interest Blank, however, these high scorers on the science concepts test were seen as "impatient, stubborn, demanding, imaginative, and emotionally insecure." Other studies explore the relative importance of science knowledge, as contrasted with enthusiasm and personal relationships in the classroom. For example, the work of Bybee (1972) and Shrigley (1974) support the position that affective variables can be significant clues to the successful science teacher.

Some interesting findings have been reported in studies of the relationship between teacher attitudes and the innovative Biological Sciences Curriculum Study. Clark (1971) reports three surveys of teachers' attitudes, and includes a bibliography of references to BSCS materials published between 1969 and 1971. Although teacher attitudes are not consistently related to student attitudes, teachers' perceptions of the classroom climate correlate with biology laboratory practices (Ackerson, 1970; McNeill, 1971). Similar findings are reported by Driver (1969), Amos (1970), and Hoy and Blankenship (1972).

With the introduction of the new science curricula, and the increasing interest in affective variables, many researchers have investigated the impacts of different types of programs, for example *Science - A Process Approach*; or *Science Curriculum Improvement Study*. There is little reliable evidence of meaningful teacher attitude change solely on the basis of the innovative program adopted.

Effecting Attitude Change: The relationship between science knowledge and attitude toward teaching science has been explored at the teacher training level. Christiansen (1971) found that preservice elementary teachers with more positive attitudes toward science obtained higher achievement scores and exhibited more positive attitudes toward the teaching of science courses. It is interesting that those who scored highest on science concepts were most critical of the basic science courses (Hinde, 1971). But there was no significant correlation between test scores and attitude toward science instruction.

Supervisory personnel have had surprisingly little impact on the attitudes of trainees. While prospective science teachers move significantly away from the attitudes of their university professors, they do not tend to become more like their supervising teachers (King, 1970). The supervisory style of the science department head was likely to affect the attitude of the science teacher toward the supervisor, but not toward the teaching of science. Those who emphasized individual expectations were regarded more positively than those who emphasized institutional expectations (Peruzzi, 1972). No significant differences in teacher attitudes toward an innovative biology curriculum were related to the principal's positive or negative feelings about the program (Lee, 1971).

Many recent studies have been concerned with the effects of different types of science methods courses. Lecture-demonstration methods have been compared with auto-instructional programs (Liddle, 1973) and process questioning methods with skill instruction (Grunau, 1973). Traditional methods have been contrasted with various innovative techniques, such as a conceptually-oriented program (Graeber, 1972), a modern science curriculum approach (Bratt, 1973), and micro-teaching (Rose, 1971; Staley, 1970). A consistent finding across these studies is that humanistic, experiment-oriented, discovery teaching styles are more apt to produce students and teachers with these characteristics. Furthermore, there is a definite gain in positive attitude toward the teaching

of science.

A comparison of preservice training with and without the opportunity to work with children over a 10-week period was carried out by Cook (1973). At the end of this period there was a significant difference between the experimental group and those receiving the traditional science methods course. Closer inspection revealed that within the experimental group it was the person characterized as "closed-minded" who made the major changes, whereas the open-minded trainees retained their open stance.

Academic Curricula - Language

Definition of Problem: Teachers of foreign languages, as well as teachers of English, seem to have a "split personality" with respect to the basic goals of instruction. Almost invariably, teachers stress the functional and utilitarian values of correct English, or facility in a second language. To Boards of Education they justify inclusion of a foreign language department in terms of increased vocational opportunities or as ambassadors of international good will while traveling abroad. Yet a great many language teachers see themselves as psychological and cultural catalysts; almost 90% have chosen a language for its historical and literary associations. This duality of underlying motivation creates a conflict in the attitude toward the language program.

A survey carried out by Turley (1969) indicates that English teachers are more interested in the practical goals rather than the social or humanistic implications of correct grammar and facility in composition. There is also evidence (Lowery, 1972) that teachers feel they need more course work in linguistics and writing than they normally receive in a teacher preparation program. Many articles in language journals deplore the use of behavioral objectives as guidelines for language instruction. These are primarily subjective reports and are not borne out by more objective studies of teacher attitudes (Turley, 1969).

The most comprehensive study of attitude toward foreign language teaching is *A Survey of Foreign Language Teachers' Assignments and Attitudes*, carried out by the Foreign Language Program at the University of Washington, 1966-1967. It is this report which has pointed up in great detail the conflicting purposes in second language instruction. On the whole, there is agreement that foreign language instruction should be initiated in the elementary schools. In K-6th grades teachers generally favor the audio lingual approach, although FLES programs which use this technique have failed to demonstrate their effectiveness. The language background and experience of the teacher has little correlation with the teacher's attitude toward a particular model of instruction. However, a great deal more effort needs to be directed toward the articulation of the teaching techniques used in the elementary grades with the approach used in the junior and senior high schools.

For older children, most teachers have a negative attitude toward audio lingual methods, favoring a combination with traditional grammatical instruction (Elmquist, 1973). The use of narrow behavioral objectives has been criticized (Lippman, 1971). Schwab (1972) feels that a program which does not prescribe behavioral objectives develops a more positive attitude in both teachers and students. Attempts to change teacher attitudes toward foreign language instruction through NDEA institutes have not been successful (Pinder, 1972).

An important source of ambiguity as to the basic purposes of foreign language instruction is the changing population of students who elect such courses. In the past, foreign language was available only to the superior student, in the college preparatory track. This is no longer the case. Many students study a second language as a vocational tool. For this reason it has been suggested that there be a two-track system for the teaching of foreign languages. The academic-college-preparatory track would emphasize the grammatical, literary, and historical values of the language, whereas the vocationally-oriented student would focus on functional aspects of speaking, reading, and writing as elements of communication.

Effecting Attitude Change: Our research review did not uncover any programs concerned specifically with changing the attitudes of teachers toward language instruction. However, there are many investigations which focus on effecting changes in how teachers view children from language-different communities and cultures. These are presented in a later chapter.

Academic Curricula - Social Studies

Definition of Problem: There are several problem areas in the teaching of social studies:

- It is difficult to separate the teachers' own social and political beliefs from the course content.
- Many textbooks contain implicit stereotypes and tend to maintain hallowed historical inaccuracies and prejudices.
- There has been an inordinate proliferation of instructional objectives.
- Even more troublesome than their quantity is the nature of these objectives. Among these would be statements such as: "develop an appreciation of our social heritage," "acquire a perspective for understanding contemporary issues," "develop a love of historical reading," and "promote international understanding."
- The new social studies curricula and methodology are antithetical to the current press for measurable instructional outcomes.

Not unexpectedly, teachers hold many of the same ethnic-racial stereotypes as the general population (Gitlitz). After presenting the racially-prejudiced image of minority groups prevalent in instructional materials, Banks and Joyce (1971) demonstrated that teachers could help their students develop a critical attitude toward the content of their social studies texts. Courses to modify such attitudes are effective in increasing knowledge about minority groups and different cultures; they may also assist in the development of more appropriate teacher behaviors (Swick and Lamb, 1972).

There is a recognition that mandated desegregation may have a deleterious effect on the teaching of social studies. Ferguson (1970) studied a teacher integration district and found that there had been no reduction in the quality of instruction, or in the content of instructional materials. But the teachers did tend to avoid discussing controversial issues. Black teachers differed considerably from their white colleagues in that they were more convinced of the need for curriculum modification.

Across a variety of studies, teacher personality, attitudes, and professional and academic background have demonstrated little consistent effect on social studies teaching. Kardatske (1968) found that teachers who scored high in dogmatism, and those who had less than five years of teaching experience, tended to take a moderate position on controversial issues. Although the 143 teachers sampled were from diverse cultural backgrounds (Mexico, Guatemala, Texas and Michigan), clarification of this ambiguous finding would be desirable before any generalizations can be drawn.

Guenther (1973) attempted to determine whether teachers who placed high emphasis on the learning of specific knowledge would have different objectives. He found that all respondents concurred in valuing higher-order learnings, such as the ability to distinguish between fact and opinion, to read with discrimination, and to apply problem-solving and critical thinking skills.

In line with the current emphasis on broadening the base for making schooling decisions, Rath and Fanning (1971) analyzed the congruence of attitudes toward the content of social studies courses held by students, parents, teachers, and administrators. Their data led them to conclude that such decisions should not be the prerogative or responsibility of any particular reference group, but must be arrived at through cooperative action.

Another area which has generated a considerable number of research efforts is that of innovative curricula in the social sciences. Studies of new programs, such as "Project Insight," (Besel, 1970), "Man: A Course of Study" (Peckham and Ware, 1973), and the "New Social Studies" (Naylor, 1973), tend to emphasize the use of inquiry techniques, with a concomitant deemphasis on rote learning of discrete items of information.

Professors in the social science disciplines seem far more satisfied with the new curricula than are teachers of social studies methods courses. The latter group feel that the NSS is overly academic, cerebral, and teacher-oriented. They would prefer to see more responsiveness to student interests, community activities, and social action (Tucker, 1970).

Similar pressures for increased community and student involvement are also evident in citizenship training. It has been pointed out that students receive messages about citizenship from all members of the school teaching staff. Educators who are bigoted, who do not insist on enforcement of school regulations, who provide few opportunities for student participation in classroom decisions, seriously impair the capacity of the school to do an effective job in teaching citizenship. It is the school administrator's primary responsibility to incorporate citizenship training in every facet of the school's program.

Effecting Attitude Change: A number of investigators have been interested in studying the effects of different types of training and levels of subject matter knowledge on the performance and attitudes of prospective social studies teachers. For example, in one study (Waimon, 1971) 10 teachers, given a total of six semester hours of an experimental micro-planning, micro-teaching, and clinical teaching course, were compared with an equal number of matched peers who took the regular six-semester-hours methods course. The experimental group obtained higher scores on teacher effectiveness, as evidenced by student performance on a two-part test of recall and reasoning. In addition, there was no adverse change in attitudes toward students or teaching after the experimental training. The resistance of attitudes to change as a result of a short experimental treatment was also demonstrated in a similar type of study (Baker, 1969), but one involving an inquiry-method of instruction. Here, too, the teachers changed their teaching behaviors but not their attitudes.

Summary Guidelines for Effecting Attitude Change with reference to Academic Curricula:

- Never forget that teachers are people and have the same biases and prejudices as everyone else.
- It is essential that teachers maintain a positive rapport with their students and their instructional methodology.
- Don't expect to achieve immediate changes in basic attitudes. These are part of deep personality structures, acquired over a lifetime of socialization within specific cultural contexts. There are no miraculous conversions in occasional week-end workshops.
- As far as possible, allow teachers a measure of self-determination in the courses to be taught.

- No teacher should be forced to adopt a technique for which there is a negative affect. It is, for example, unwise to insist that a totally phonics-based reading system be used when the teacher believes strongly that an experience-story whole word introduction to reading is infinitely superior.
- To optimize the effectiveness of a new program, involve every level of school personnel, parents, community, and even students themselves, in the decision-making process.
- If the change to be introduced involves an open and interactive approach, encourage teachers to participate in the on-going development of materials and methodology.
- When the new approach is one which requires strict adherence to a specific set of principles, materials, and/or procedures, make sure that the teachers understand what will be expected of them and are willing to support the innovation.
- Even if a democratic procedure was used in the decision to adopt a new program, there will be a minority of teachers who have opposed the innovation. A great deal of time and effort should be devoted to providing a basis for a positive attitude toward the projected changes.
- In fairness to the new program, as well as to the teachers, those who still do not approve of the innovation should be offered acceptable assignments, perhaps in other classrooms, other grade levels, or even in other schools. Do not confront teachers with untenable alternatives.
- Teachers afforded the opportunity to remain in a traditional classroom and observe the progress of an innovation carried out by other teachers may be won over by seeing the advantages accruing from the new method. They may then voluntarily express interest in participating as the program expands.
- Introducing a new curriculum approach, such as new math, new social studies, or one of the new science curricula, will not necessarily produce a more favorable attitude toward the subject. Actually, an unfamiliar approach can be expected to produce resentment and rejection, unless teachers have received appropriate preparation.
- Careful in-service courses should be set up to provide a background for a new curriculum.
- In the elementary grades, if a particular teacher is very negatively disposed toward a particular subject matter, try to arrange either a team-teaching situation where the

responsibilities relate to the preferences of the teachers, or in-service courses which will increase the teacher's own proficiency and thus eliminate some of the built-in feelings of inadequacy which predispose the negative attitudes.

- Where the teacher specializing in one subject area must be given responsibility for another, try to select a teacher who is willing to teach the course and one who has had more than a minimum number of required courses in that subject.
- A teacher who is brilliant in a particular subject area does not necessarily make an exceptional teacher, especially at the introductory level. After assuring that there is a basic competence in the subject, it would be more meaningful to look at personality characteristics such as personal warmth, enthusiasm, and responsiveness to students.
- It is often easier to change teachers' behaviors than their beliefs, especially in areas of political and social prejudice. As a first step, accept the change in behavior and work for deeper emotional changes over a longer period.
- Often young teachers, who have had less opportunity to develop ingrained habits and opinions, are more successful in new approaches. Unfortunately, this cannot be accepted as a hard-and-fast rule. In many cases older teachers, aware of the inadequacy of the traditional procedures, are eager to try something different, especially if they are assured of material and in-service training support.
- Teachers who encourage an experimental attitude are likely to have students who receive high scores on tests of both facts and understanding.
- Humanistic, experiment-oriented, question-asking methods courses are more apt to produce students and teachers with these characteristics than traditional types of training.
- Political and social prejudice have an important bearing on the way social studies content is presented. It is therefore extremely important that teachers of this subject matter should be open to a diversity of beliefs. In selecting faculty for social studies courses, care should be taken to obtain an assessment of the attitudes and beliefs of the candidate.
- Decisions with respect to social studies content and instructional materials should be the cooperative responsibility of all those involved - students, parents, teachers, and administrators.

- Science teachers tend to be the most conservative of all subject matter specialists. Thus they can be expected to resist innovative methods and content. This is particularly true of male science teachers. If there are options in the assignment of teachers to new science courses the female science teachers might be the most accepting.
- Foreign language programs should be diversified so as to offer meaningful courses for students with different goals.

Career Education Curricula

Definition of Problem: During the past few years there has been a resurgence of interest in the field of vocational training, but under the broader rubric of Career Education. This renewal reflects awareness of a number of critical problems:

- The low status of vocational education, as viewed by both other academics or the student-parent-community population, has created a negative attitude toward the teaching of vocational subjects.
- Teachers of vocational courses expect their students will have acquired basic academic skills before entering their classes. Unfortunately, this is frequently not true. Children in the upper grades, even those in junior and senior high school, are often still reading at a primary grade level. Teachers intent upon teaching their subjects become frustrated and discouraged.
- Many vocational teachers have been practitioners of their vocations and may have excellent occupational skills, but they have not had a customary academic teacher preparation. Hence they are not trained in methods of teaching reading or math and resent having this responsibility imposed upon them.
- Often students assigned to vocational courses are those having behavior and/or learning problems. Yet vocational teachers, with only a minimal teacher-training background, are expected to cope with special education issues.
- Recent attempts to improve and upgrade the teaching of vocational skills have resulted in the introduction of many new courses, and new approaches to traditional courses. This requires an entirely new orientation which many vocational educators find extremely difficult.

The passage of the federal Vocational Education Act in 1963 gave an unprecedented impetus to the improvement of vocation education throughout the country. More recently, the installation of a program of Career Education in the National Institute of Education has increased the awareness of the need to upgrade the low-status image which this area of study has had over the history of public education. (See Morgan, 1972 for an overview of national career education programs.)

In an early study (Gilliland, 1967), the attitudes of educators, students, and parents toward blue collar occupations and vocational education were compared. The data indicated that educators had the most favorable attitudes, parents slightly less, and students were most negative. Among educators, teachers and administrators had slightly more favorable attitudes than did the practical arts teachers themselves. Not surprisingly, union respondents were more favorable than were non-union respondents to vocational education.

Since the time of this study there has been a considerable re-orientation to the entire field of "practical arts." Preparatory to the installation of the Comprehensive Career Education Model, a survey of students, staff, and parents in six participating local education agencies in California was carried out by Brickell and Aslanian in 1972. All the respondents reported an extremely positive attitude toward career education.

A number of investigators have been concerned with comparisons of attitudes of vocational teachers with those of other groups. Since vocational teachers are often recruited from the vocations themselves, many of them do not have academic degrees. The question then arises as to whether differing amounts of formal academic schooling have any effect on attitudes toward the teaching of vocational subjects, or achievement gains of students. To throw some light on this issue, Pfahl (1971) surveyed 149 industrial education instructors in community colleges, secondary schools, and skill centers. Some of these had 25 or less hours of professional preparation, some had 25 or more hours but less than a baccalaureate degree, and some had earned college degrees. The data collected indicated that there were no significant differences in attitude related to academic background. Non-degree teachers received a better rating by students than did teachers with a degree. Instructors with more than 25 hours of college but less than the B.A. degree had more positive attitudes toward teaching than the other two groups.

Another type of comparative study was carried out to determine whether there were any differences between those who elected to remain in a particular vocation and those who decided to teach their skills to high school students. Capelli (1973) found that those who elected to enter the teaching profession had significantly higher positive attitudes toward teaching than those who elected to remain in their vocations.

For many years, home economics has been considered an established part of the upper elementary curriculum. Recently new content has been introduced under this rubric, for example, consumer education and nutrition. Of concern here are teacher attitudes toward these new types of content. In general, both teachers and students have positive attitudes to the inclusion of consumer education, particularly at the high school level (Burton, 1971; Haskell, 1974). While there is evidence that educators have favorable attitudes toward nutrition education (O'Farrell and Kendrick, 1972), Peterson and Kies (1972) found no significant relationship between knowledge of course content and attitude toward teaching the subject material.

Courses in distributive education are relatively new among vocational curricula. Several studies have attempted to determine the educational backgrounds and beliefs of teachers who enter this field (e.g. Doneth, 1970). In one such investigation (Traicoff, 1967), approximately one-third of the teachers had had business education courses themselves. Of this group, slightly less than 90% expressed a strong preference for teaching distributive education. Riley (1970), in a study comparing three methods of conducting visitation conferences in cooperative distributive education programs, found evidence that there was a need to improve both employer and teacher attitudes toward this vocation.

Another relatively new field encompasses the biological and agricultural occupations. Because of the relative novelty of this area, there is still a good deal of disagreement among teachers as to the content to be included (Combs and Todd, 1974). Conservative attitudes toward this type of course seem to be retarding its full development and usefulness (Russell, 1972).

Effecting Attitude Change: Special workshops have been designed for science teachers to increase their awareness of the new career opportunities (Thomas and Jackson, 1972). Such workshops are often successful in recruiting teachers for new vocational programs, or influencing them to include vocationally-slanted materials in the regular science courses (Thomas et al., 1972, 1973).

A workshop conducted by Thomas et al. (1973) consisted of 11 3-hour sessions. The investigators report that the objective of increasing teacher awareness of career opportunities was achieved. In addition, significantly more positive attitudes toward career education were developed, and many teachers expressed a willingness to teach such courses. Similarly positive changes were found by other researchers, for example, Mannebach (1969) and Pinson (1971).

As in academic areas, a positive teacher attitude toward the subject matter taught is no guarantee that students will become better learners. Young (1973) demonstrated that teachers could be taught to alter their teaching behavior so as to exhibit greater enthusiasm when teaching, but this did not significantly affect the students' learning of the course content.

A four-week intensive experimental program for agricultural occupations teachers provided organized in-service instruction and on-the-job occupational experience in agricultural establishments. The overall reaction to the program by the teachers and the businessmen ranged from good to excellent. Viterna (1971) surveyed administrators' opinions on the inclusion of vocational agriculture courses and found almost universally favorable attitudes. It is interesting that 86% of superintendents in Class A schools felt that girls should be included in such programs.

Change orientation of vocational teachers has been related to other personality variables. To identify potential innovators and teachers most receptive to change, Russell (1972) classified 250 vocational teachers as "early adopters" or "laggards." All the teachers were asked to respond to a number of attitude and personality inventories. The basic finding was that teachers with high change orientation scores were less dogmatic, less conservative, and more cosmopolitan. They also had over twice as many unusual and unique features in their instructional programs.

Summary Guidelines for Effecting Attitude Change with reference to Career Education Curricula:

- There is a generally favorable attitude toward the introduction of vocational education courses, especially ones which prepare young people for potential job opportunities.
- Workshops to orient subject matter teachers to include practical applications of the subject in occupational contexts usually produce positive outcomes.
- Where students in vocational courses, such as business or distributive education, have inadequate academic skills in reading, spelling, penmanship, or math, these subjects should be taught by experienced remedial teachers, if possible.
- Teachers of occupational courses should establish the entry level academic skills of their students and adapt their instructional materials accordingly. There is no reason why vocational skills cannot be taught using a minimum vocabulary and reading load.
- At all times, and with all school personnel, the status value of occupational or "blue collar" roles in our society must be constantly reinforced.
- Teachers of vocational skill subjects should be given an awareness of their legitimate and important role in the total school curriculum.

Non-Traditional Curricula

Definition of Problem: Over the years, the public schools have taken over a great many of the responsibilities of home and church. Three areas in particular involve extremely sensitive attitude structures. These are religious, drug abuse, and sex education.

- In this country people have always felt strongly about the inclusion of religious education when it has had a definite sectarian slant. There is, however, lack of agreement as to whether moral or ethical values, or even non-sectarian but theistically-oriented prayers, should be permitted in the regular classroom.
- Although discussions of human sexuality are much less taboo in the public media, there is still strong resistance to providing this type of education in the public school.
- Many families still do not recognize the dangers of drug, alcohol, and tobacco abuse as having even remote relevance for their children. As with sex education, there are some who feel that exposure to the information will result in precipitating the behavior rather than inhibiting it. Often teachers' attitudes reflect those of their communities on these questions.

Kohlberg's recent work has demonstrated that moral development proceeds in stages, just as does cognitive development. And yet many teachers feel that values should not be a separate component of the curriculum (Longstreth, 1970). Rather, many teachers believe that these important concepts should be acquired as incidental learning, perhaps derived from setting appropriate examples, or in the process of classroom discussions. (The Longstreth dissertation includes an extensive bibliography on this topic.)

With the spread of drug abuse even into the elementary grades, there has come a general awareness of the need for the inclusion of drug education in some aspect of the school curriculum (Moodie, 1972; Ojemann et al., 1969). The tremendous increase in federal funds available for research studies aimed at attacking drug and related problems indicates that many people believe that drug education can serve as an effective deterrent to drug abuse. But frequently teachers feel that providing this instruction is not their responsibility, and hence they have negative attitudes toward teaching the new content. Furthermore, not all teachers are prepared to present this type of information objectively, without first uprooting a great deal of misinformation and emotional bias. There are, for example, many Middle-Americans who think of "drug addicts" in terms of an old Charlie Chan movie.

Effecting Attitude Change: Several research explorations have been concerned with examining the effects of workshops designed to change teacher attitudes on these critical issues (Lindenauer, 1972; Prescott, 1972). On the whole, they have not been helpful in changing basic attitudes. After learning about drugs, teachers become cognitively able to distinguish the range of effects attributable to different substances. But they seem less optimistic about the effectiveness of awareness workshops in changing attitudes. Those who did not have the special training were more apt to value the experience than those who had completed it.

Although the entire subject of human sexuality is no longer surrounded by an aura of guilt and embarrassment, there is still a great deal of emotional resistance to including sex education in the school context. However, inservice workshops have brought about significantly more positive attitudes, with the increase in objective information about sex (Fretz and Johnson, 1971; Stone and Schwartz, 1974).

Courses in human development or family life have proven to be excellent vehicles for the presentation of both sex and drug information (Ojemann et al., 1969; Wendland, 1972). Such courses also are concerned with the larger issues of human values and moral development. Most school boards and principals avoid issuing any official guides or instructions about religious instruction (Reich, 1971). In most cases it is the teacher who decides how much religious activity is actually included in the class schedule. Thus the teachers' attitudes in all these sensitive areas can play a very important role.

Summary Guidelines for Effecting Attitude Change with reference to Non-Traditional Curricula:

- Teachers, like all other members of the general population, have deep-seated beliefs and attitudes about moral and religious concepts. A new curriculum or course content should not be super-imposed without close consultation and adequate preparation.
- Content which touches on the private belief systems of parents and community must be discussed and worked out in cooperation with the people involved. This would include students as well.
- Many of the controversial topics can be made part of an existing curriculum without generating excessive emotional conflicts. For example, drug abuse information can be part of a science or health course; sex information legitimately becomes part of early classroom experiences with plant and animal life. With older children, this content is naturally part of the biology course.

- A step beyond including the content in existing courses is to initiate a family life or human growth and development curriculum. With adequate pre- or in-service training, this type of sequence can be integrated into a regular curriculum without too much hostility or conflict.
- Just as with academic subjects, there should be a "scope-and-sequence" development of the controversial concepts. The level of instruction should be appropriate to that of the students, and there should be a synchronized program from one grade to the next.

CHAPTER 3

ATTITUDE TOWARD STUDENT ATTRIBUTES

Student Attributes: General Statement

There is a pervasive belief that the attitudes of teachers have an important impact on how students feel about themselves as well as on the rate at which they acquire academic skills. Khan and Weiss (1972), in their comprehensive review of the affective dimensions of teaching, express this view with the statement: "It is evident that teachers are an important influence on students' attitudes." But then they go on to say that: "It is surprising, however, that very little direct evidence exists on the extent to which students' school-related affective behaviors are influenced by teacher attitudes." From their review of the literature they conclude: "...the relationship between teachers' and students' attitudes has been regarded as axiomatic with no need for empirical research."

Much attention has been given to developing techniques for measuring and changing attitudes. Over the years, preservice or inservice teacher training has involved changing teacher attitudes (e.g. Jacobs, 1968; Smith, 1971; and Knoll, 1973). Yet it is only comparatively recently that the question of whether teacher attitudes make a difference has been raised. Pedhazur (1973) doubts that we are asking the right questions. And even if we are, he feels that our techniques for describing and measuring attitudes lack theoretical foundation and are generally inadequate.

In spite of these doubts a group of nationally-known educators, at a series of meetings arranged by the Bureau of Educational Personnel Development of the United States Office of Education, agreed that: "Teachers are the single most important element in the school." As we consider the wide range of investigations which attempt to specify teacher attitudes on various aspects of student characteristics, and the great variety of studies which report attempts to change teacher attitudes, we shall find few experimentally-rigorous tests of the hypothesis that teacher attitudes have a direct bearing on student attitudes or behavior. Unquestionably, there is need for this type of research. But we cannot escape the fact that teachers do have emotional reactions to certain attributes of students, and that these feelings, or attitudes, predispose them to behave differentially to different types of students.

Among the most important of these differentiating characteristics are: race or ethnicity, socioeconomic status, divergent speech patterns or language, level of ability or achievement performance, sex, and classroom conformity or behavior. It is extremely difficult to study teacher attitudes toward any of these characteristics in isolation, since there is an inordinate amount of interaction. For example, most of the studies of attitudes toward children from poverty populations are

confounded by the fact that these children are also members of minority ethnic groups, primarily Blacks and Mexican-Americans, who also have divergent speech patterns. And a large proportion of these students fail to achieve at expected levels, often for reasons other than lack of ability.

To effect some measure of organization, the rest of this chapter will consider, in turn, each of these attitude objects. This is simply a heuristic convenience and does not imply any attempt to separate the effects of different student attributes.

Student Attributes - Ethnicity

Definition of Problem: The majority of the studies having to do with attitudes toward Black or Mexican-American children are concerned with these children as members of a poverty or inner city, ghetto population. These will be reported in the next section, although most educators are familiar with the general trend of the literature. (See Mathieson, 1971 and Stone, 1969 and 1970 for reviews of studies in this area.) Swick and Lamb (1972) have reviewed a number of studies concerned with the teacher's attitude specifically toward Black students. The total philosophical orientation is often a stronger indicator of either a positive or negative attitude toward an ethnic minority group than the person's own racial membership (Campbell, 1971).

There are a great many researchers who report surveys indicating that both White and Black teachers have biased attitudes toward Black students. To cite but one, Clifford (1973) had nine teachers rate their students on the Shaeffer Classroom Behavior Inventory. The Black students were described as more introverted, more distractable, and more hostile than were the White students. A related finding (Long and Henderson, 1971) is that while teachers rate White students consistently higher than Black students, they are better able to predict success for the latter group.

Teacher attitudes toward Mexican-American students are also extremely negative (Gustafson and Owens, 1971; Buford, 1973), becoming increasingly so with grade level. Palomares (1970) reports that many educators hold stereotypic views of the Mexican-American child. For example, there is a broadly accepted notion that, as a group, they have a negative self-concept. This is as much a false stereotype as the caricature of the Mexican as lazy, fatalistic, unable to delay gratification, and dependent. By projecting such an attitude, the Anglo teacher forces the Mexican-American child either to conform to the stereotypic behavior or reject his cultural heritage.

Baca (1972) carried out a study to determine whether Anglo and Mexican-American teachers had different perceptions of Mexican-American children. A 50-item cultural awareness questionnaire focused on six major factors: achievement, time orientation, acculturation, religiosity,

family identification, and economic influences. Mexican-American teachers differed significantly from the Anglo teachers on the first four factors, but agreed on the importance of family identification and economic problems.

The third major ethnic-minority group of concern to educators is the Native American. There is a long, sad history of the education of the Native American child under the aegis of the Bureau of Indian Affairs (see Burdin et al., 1970). BIA schools in the past have been notoriously opposed to the preservation of the ethnic values of this group. In many areas the language and customs of the people had been almost completely eradicated. Despite the enforced prohibition against use of the native language, these children were still demonstrably deficient in English. A relatively recent survey (Smith, 1970) reported that "the education of American Indian children in the Southwest is rigid and inflexible, classrooms are almost totally lacking in local materials, and schools seem unwilling to make any concessions to enlist the enthusiasm or interest of the Indian community in the education of their children."

Other data on teacher attitudes toward the teaching of Indian children collected at approximately the same time (Birchard, 1970) indicate that most of these teachers do not hold actively negative perceptions of this minority group. Krause, Ziegler, and Havighurst (1970) report that while most Anglo teachers do not particularly favor Anglo indoctrination, neither do they feel that teaching tribal or Indian culture is an appropriate school function. Female teachers were more apt to hold favorable feelings about Indian children, but they were more authoritarian and directive in the classroom. With increasing age and experience, there is an increase in positive attitude toward teaching Indian students.

Teachers who are from this ethnic group themselves are more apt to teach in schools with a large percentage of Indian children. They also have more contact with the parents and students outside the school environment. And they are more apt to press for assimilation than the local school policy warrants.

Effecting Attitude Change: Most programs which attempt to change biased racial attitudes have a strong affective emphasis. For example, Grambs (1973) draws on the literature of intergroup relations to develop a program for changing discriminatory and other undesirable attitudes. Fauth (1972) describes a workshop, based on human relations laboratory training, where a significant decrement in racial prejudice occurred, while Baker (1973) reports a workshop which produced no measurable change in attitudes. Similarly, the "Ethnic Relations Instructional Unit" (Puglisi, 1973), which emphasized the relationship between cognitive growth and attitude change, found a significant gain in knowledge about the Black subculture, but no change in attitude toward desegregation. The preponderance of the evidence indicates that gain in knowledge is not necessarily accompanied by a higher level of attitude change.

A more extensive training program was designed by Heath et al. (1970). Teachers with at least one year of experience first attended an 8-week summer institute which included sensitivity training sessions, role playing, and educational seminars. During the school year they continued to receive special inservice training. But this program, too, was more successful in imparting information and correcting misinformation than in changing teacher attitudes.

Student Attributes - Socioeconomic Status

Definition of Problem: A great many researchers have attempted to document and delineate the ways in which teachers express bias toward children from poverty environments. Garfield et al. (1973) studied the effect of the child's social class on the school counselor's handling of children with behavior problems. They found that if a counselor was told that a problem child came from a well-to-do family there was a significantly higher probability that the counselor would recommend a parent conference than if the child was said to be from a low-income family. There were also more suggestions for alternative ways of handling the problem behavior. With the problem child from a poor home the emphasis was on punitive action, with retention in grade the most frequent recommendation. There was a great deal of head shaking and sighing, but a fatalistic acceptance of inability to avert the eventual drop out and delinquency even if constructive action were taken.

A large proportion of the investigations are concerned with determining how different characteristics of teacher personality or the schooling environment itself affect the formation and expression of teacher attitudes. For example, Dunwell (1971) attempted to assess the factors which affect teaching in ghetto schools. The survey of 78 teachers indicated that teachers who did not first alter their own self concepts were unable to establish a constructive relationship with disadvantaged students.

To test whether a person's own socioeconomic background affected perceptions of students, middle class teachers and their lower class aides were studied (Goldenberg, 1971). The findings indicated that middle class teachers were significantly more permissive and less puritanical in outlook. They saw themselves less as guardians and restrainers of child activity and more as facilitators of growth and development in a minimally constrained atmosphere. As a rule, they deemphasize corporal punishment, impose fewer sexual stereotypes, place less distance between themselves and the children, and tend to see children as having equal rights, with the ability to assume responsibility and operate autonomously. They are less likely than their lower class aides to view children as unruly, irritating, or over-confident.

In order to get at some of the important variables, several investigators have constructed assessment instruments. Gies and Alspaugh (1973) have developed an instrument to measure values. They report that

the teacher's own values are more congruent with the perceived values of their principals in elementary schools in which there is an open climate.

An "Empathy towards Poverty" scale was constructed and validated by Sciarra and Jantz (1973). The 50-item questionnaire, administered to students in a special program for the preparation of teachers for inner city schools, seemed to be sensitive to changes in attitudes toward poor children at the completion of the course.

After surveying over 444 teachers, Grady (1971) found that teachers with less than six years of experience were more likely to hold stereotypic attitudes toward poor children. Teachers more frequently had negative attitudes toward their students in the poverty schools than did teachers in middle-class schools. Furthermore teachers trained in ghetto schools had less positive attitudes toward disadvantaged students than did those from rural environments (Willie, 1969). But Washington (1968) demonstrated that beginning negative attitudes of student teachers show a somewhat positive shift when exposed to practice teaching in inner city schools. A number of investigators (e.g. Israel, 1971) report that a type of "culture-shock" occurs when middle-class teachers are placed in ghetto schools.

There are few studies which attempt to document the effect of teacher attitudes on the teacher's classroom behavior. Some of these are reviewed later in this chapter in the section on student abilities as an attitude object. A relevant study here is one by Sears (1972). She reports that teacher behavior was predictive of child behavior and achievement, and that positive attitude on the part of teachers and peers was likely to produce optimum gains in disadvantaged children. The most facilitating type of teacher behavior was listening to children with approval.

Working with teachers of Head Start children, Boger (1967) found that Black and Mexican American teachers were generally more empathic and optimistic about the abilities of these youngsters. But they were more controlling and authoritative than White teachers with the same group. A mail survey of inner city teachers by Chancellor (1973) confirmed that teachers who requested transfers to other than ghetto schools had more negative attitudes toward Black disadvantaged students than did those who elected to remain.

Finally, Faunce (1968) found that the successful teacher of the disadvantaged child was able to: accept the fact that poverty children are physically deprived; recognize the presence of racial and social discrimination; avoid stereotyping; find teaching disadvantaged children a rewarding experience; accept the liabilities of poverty in a non-punitive manner; and accept the subculture of the minority child.

As these studies indicate, researchers frequently are unable to separate the attributes of poverty status and minority ethnic group membership. Most investigators find that both SES and race affect the teacher's attitude towards the children, although Miller (1973) reports SES has the more powerful impact. Additionally, Friend and Wood (1973) point out that the teacher's perceptions of children's capabilities affect the children's perceptions of themselves. These in turn are another source of negative bias.

Effecting Attitude Change: Because of the tremendous federal investment in upgrading the education of children from poverty homes, funding has been made available to explore a great variety of techniques and programs for instilling more accepting and positive attitudes toward socioeconomically disadvantaged students. As with the programs for modifying attitudes toward ethnic minorities, the majority of these attempts focus on group experiences involving interpersonal interactions.

There are far too many studies to cover adequately here, so we will by necessity only sample randomly to provide some idea of the diversity of change models. These range from traditional teacher training courses, providing only cognitive-informational instruction, to what has been called a "total immersion," multi-faceted approach consisting of a combination of all of these techniques plus on-site and community living experiences.

The purely cognitive approach seems to be the least effective in changing teacher attitudes toward race and/or socioeconomic status attributes. Burlando (1970) provided a seven-week training program to change teacher attitudes toward teaching reading to disadvantaged students, with no reliable evidence of change. Similarly, no substantial changes were found when Willerman (1971) attempted to change teachers' attitudes by providing objective information about the cultural characteristics of minority children. The author speculates that the failure might have been due to one or more of the following circumstances: 1) too much information was presented at too rapid a pace to permit adequate absorption; 2) the information was difficult to communicate; 3) the attitude change sought was inconsistent with existing attitudes and hence difficult to elicit; and 4) the concepts taught may have lacked relevance or validity from the teachers' point of view.

In a follow-up study of 85 teachers who had attempted an institute on the disadvantaged the preceding year (Miller and Strickland, 1972), the teachers credited themselves and their principals with more positive attitudes and improved school programs for disadvantaged students. But there was little evidence to show that there was any commensurate change in classroom practices.

A single exposure to a lecture-film presentation on the characteristics of disadvantaged children showed a positive gain on the immediate posttest, but there was no evidence of a lasting impact (Clark, 1971).

On the other hand, Sperry (1972) was more successful with an objective survey-feedback technique. Taped discussions of the data collected were played back to the teachers and analyzed with the help of special consultants. The topics included issues of prejudice, stereotyping, and various ethno-cultural myths. As a result, there was a positive shift in the attitudes of the teachers toward disadvantaged students.

Consultants have also been used in other studies. Levan (1968) felt they had had little impact, but Collins (1971) showed that resource persons could be extremely helpful if used appropriately throughout the training period. To insure a constructive contribution, he noted, it is necessary to specify precisely what dimension of attitude needs to be changed, and then to plan experiences specifically to achieve these goals.

Variations of traditional preservice and inservice teacher training courses have been explored. For example, Coopersmith (1973) describes a program to provide elementary education students with experience in teaching disadvantaged children. Unfortunately, it did not appreciably affect the number of teachers who remained in ghetto schools. But those who did seemed more responsive to the needs of their students. Staiert (1972) assessed the attitudes of student teachers who elected to teach in the inner city, and found that they had more positive feelings about the disadvantaged to begin with. After a two-year fellowship program these attitudes became even more positive.

With the support of federal funding, a number of teacher training programs specifically for teachers of disadvantaged and/or ethnic-minority children have been initiated. These include the Teacher Corps, the Career Opportunities Program (COP), and others sponsored by the National Defense Education Act (NDEA) and the Education Professions Development Act (EPDA). The provisions under which monies are allocated require that the programs be evaluated, and hence there are many reports of the effectiveness of the different demonstration-type models. Most of the time the assessments are subjectively positive, but there are few experimentally-sound designs, and little of the "hard data" needed to substantiate (or disprove) the claims. A more or less representative sampling of such studies include: Harvey and King, 1969; O'Tuel, 1971; Windsand, 1971; and Zollo, 1971. There are also a number of bibliographies compiled under the aegis of the ERIC service, e.g. Jablonsky, 1972 and 1973; Jayatilleke, 1971; and Mathieson, 1970 and 1971.

Workshops are the most popular form of inservice teacher training. Their effectiveness varies considerably, depending upon the techniques employed and the content emphasized. Behavior modification techniques were used by Whitmore et al. (1974). The program was designed to increase student achievement by increasing teacher recognition and reinforcement of student behavior. There was a five-day workshop before the start of the school year. Concepts emphasized were: motivation; effective, non-punitive techniques for controlling student behavior; theory of

positive reinforcement; techniques for minimizing failure experiences; and group and individual problem solving skills. There were weekly and biweekly mini-workshops and a support system providing materials and technical assistance to the participant teachers.

Although many desirable changes were reported by both the researchers and the participants themselves, the primary goals of improving student achievement and changing teacher and pupil attitudes and behaviors were not met. The researchers speculated that the effectiveness of the program had been reduced by the principal's expectation of failure, lack of conviction on the part of some of the teachers, and a pervasive sense of pressure, futility, and low professional and personal self esteem of the majority of the participants.

There are much more optimistic reports where workshops involve interaction and group dynamics techniques to establish openness and rapport among various groups of teachers and parents (e.g. Stern, 1970; Wheeler, 1970). Role playing and simulation games have proved helpful in reducing negative attitudes (Carl and Jones, 1972; Livingston, 1972).

The "total immersion" programs also vary considerably, particularly in the number of separate components included in these composite training approaches. Some include actually living with a poverty family (e.g. Laughery, 1973), or in the poverty community (e.g. Boyce, 1972; Gibboney et al., 1970; Ross and Swick, 1972) for a limited period of time. Others involve teaching in ghetto schools plus various types of classroom/seminar experiences and group interactions. For example, Swick and Lamb (1972) designed a preservice program which included a cognitive component emphasizing knowledge about minority groups, cultural styles, special learning characteristics, and effective teaching behaviors. This was combined with a training practicum in which the student teachers were able to view and participate in the various social interactions in the classroom. A third component consisted of value development sessions to establish a positive and humane attitude toward minority groups. These three training experiences were integrated in seminar sessions in which student teachers discussed the problems of working with children and adults in inner city communities.

In evaluating the effectiveness of this and other similar programs, Swick (1973) reports that "cognitive gains were made by the subjects with regard to more adequately understanding the characteristics and needs of disadvantaged children." Presumably the structure of the course of study would expose student teachers to the reality-oriented context of working with disadvantaged children. At the same time, it is clear that deeply held beliefs were probably not challenged or permanently changed. Swick emphasizes that a course of study can produce a positive attitude change if both cognitive and affective experiences are provided. Positive outcomes are sometimes reported in programs which consist of various combinations of components (e.g. Cuban, 1969; Dooley, 1970; Mazer, 1969; Simmons, 1973; and Soptick, 1973).

Another group of teacher training studies reflects the attempts of researchers to compare the effectiveness of different types of approaches. For example, in order to assess the effect of exposure to cultural, social, and economic diversity on teacher attitudes of tolerance and optimism, Baty (1972) compared a traditional training experience to one which was augmented by 10 three-hour evening sessions of lectures and discussions in the local school setting. The results indicated that teachers with more than one year of experience with disadvantaged children began with more optimism, and the additional training increased their positive attitudes.

Grey (1973) compared laboratory/field training with a regular teacher training course, and found no significant differences. And Laughery (1973) indicated that his total immersion program had less effect than a typical classroom experience. Furthermore, Needham (1973) compared the effect of intern teaching in advantaged versus disadvantaged school settings and found no differences related to the type of student taught. The attitudes of the individual trainees were evidently firmly established before the teaching experience was encountered. From the point of view of these researchers, there seems little value or justification for elaborate field training programs, especially since they are so much more expensive than the typical teacher-training institution.

In reviewing the large number of studies concerned with training teachers to work with disadvantaged and minority children, it seems that the early optimistic reports have given way to more cautious and qualified assessments. From our current vantage point, it seems safe to say that a classical, academic training which focuses on subject matter and methods courses, and ignores the specific problems faced by teachers working in inner city schools, will not prepare the types of teachers we need. On the other hand, it is not necessary to go overboard in a total immersion attack. A well-balanced program, providing both cognitive and affective understandings, seems the most cost-effective approach to follow.

Summary Guidelines for Effecting Attitude Change with Respect to Ethnicity and Socioeconomic Status:

- Before bias can be eradicated, there must be a recognition that it exists.
- Teacher attitudes on questions of race, culture, and poverty are based on a lifetime of familial and socialization experiences and are not easy to modify.
- Providing information about the minority culture is an important first step, but it will not automatically bring about a change in attitude.

- It is sometimes easier to obtain a change in behavior than a change in attitude. For example, teachers can be taught improved techniques for relating to minority children without necessarily changing how they feel about them.
- One may also obtain a changed behavioral response on an attitude inventory without necessarily reflecting a true change in feeling.
- Pre-post changes on an attitude questionnaire do not guarantee that there will be a concomitant reduction in discriminatory behavior in the classroom.
- A classical, academic teacher training which focuses on subject matter and methods courses, and ignores the specific problems faced by teachers in inner city schools, will not prepare teachers for working in such schools.
- Total immersion of the middle class teacher in a ghetto environment often induces "culture shock" which may in turn precipitate an increase in negative attitudes toward disadvantaged and ethnically-different children.
- An effective change program usually incorporates some type of group dynamics experience.
- A well-balanced program, providing both cognitive and affective understandings and group interactions, seems the most cost-effective teacher training approach.

Student Attributes - Diverse Speech Patterns

Definition of Problem: A third type of student attribute which is frequently confounded with race and SES is that of the language or dialect spoken in the child's home, as reflected in the speech used in the classroom. Few children from well-to-do non-English speaking homes are included in the research studies concerned with diverse language patterns. It is the child from the economically-disadvantaged home, who speaks non-standard English, who is of concern. Hence, there is a great deal of confounding of attitudes toward non-standard speech with those toward ethnic minorities and/or poverty environments.

Cohen and Kimmerling (1971) reviewed 18 studies dealing with attitudes based on language differences. They report that race was correctly identified from hearing the speech alone, without any visual cues, 95% of the time. Where variations in speech patterns exist, they reflect variations in ethnicity and SES. These in turn are associated with stereotypic attitudes regarding the personal traits and abilities of the

speakers. Without exception, the research review supported the fact that linguistic attitudes and stereotypes affect teachers' perceptions of students. To note but a few studies: Whitehead et al. (1972) used a semantic differential technique to support the presence of dialect effects; Crowl (1970), and Crowl and MacGinitie (1974) demonstrated that White teachers give significantly higher grades to the same performance when produced by a White speaker than by a Black speaker; and Hewett (1971) showed that White college students consistently rated non-standard speakers as low in education, intelligence, socioeconomic status, and speaking ability.

Similar findings are reported by Light (1970); Naremore (1969); Seligman, Tucker, and Lambert (1973); Stedman and Adams (1973); Wisset (1971); and Woodworth (1971). A comprehensive series of studies have been carried out by Williams and his colleagues at the University of Texas (e.g. Williams and Whitehead, 1971; Williams, Whitehead, and Mitler, 1971; Williams, Whitehead, and Traupman, 1970), which add some new insights but do not conflict with the findings of the other investigators. They report no relationship between the years of teaching experience and language bias, but there is some indication that the ethnicity of the teacher interacts with that of the child in making speech evaluations. On the whole, judgments based on speech characteristics are predictive of how children are graded and assigned to classrooms. For this reason, it is strongly recommended that a course in speech evaluation and stereotyping be included in the teacher training curriculum.

Although it is difficult to separate the effects of race and speech differences, a number of researchers have attempted to determine the relative influence carried by each in shaping teachers' attitudes. Using a visual, audio, and combined audiovisual modality, Rosenfeld (1973) presented teachers with stimulus materials portraying students from different ethnic and social class backgrounds. The results confirmed the fact that teachers form stereotypic expectations based on ethnic and social class cues, and that these are transmitted in both audio and visual modes. Of particular interest here is that the audio mode, that is, listening to the speech with no visual cue as to the race of the speaker, was the most important factor in setting the prejudicial attitude. (See also Jensen and Rosenfeld, 1973.) Similarly, Gilberts, Guckin, and Leeds (1971) found that while race, SES, and language cues affect the ratings White teachers assign to students, language and SES have a far greater impact in producing negative judgments.

The deleterious effects of teacher attitude bias in the education of the Mexican-American child has been the impetus for a national bilingual-bicultural emphasis in the public schools. Such programs have the dual purpose of improving performance in academic skill subjects and the learning of a second language. For years the basic approach to the teaching of children who spoke a language other than English was to substitute English for the native language as quickly as possible. Not only was there no effort to teach the second language, but its use was frowned

upon and often forbidden. Thus there is an overriding expectation that the child will subsequently develop more favorable attitudes toward the self as a member of a valued cultural group.

A number of studies attest to the importance of the attitude of the teacher and the general social setting of instruction in facilitating the academic success of the non-native-English-speaking child (Cohen and Promisel, 1970, 1971; Dulay and Pepe, 1970). In creating a favorable environment, teachers are encouraged to accept the language or dialect of the child as a legitimate form of communication and to employ dialect readers in the early reading program (Gumperz, 1970; Leaverton, 1971). Many bilingual programs advocate using the initial language as an introduction to reading as well as other subject matter content (Politzer, 1968). The Milwaukee Bilingual Education Program (1972) also begins with the child's dialect, but develops a series of behavioral objectives for the acquisition of both English and the second language.

Effecting Attitude Change: Because of the demonstration nature of most linguistic interventions, it is difficult to find objective experimental data with reference either to the effects of specific training programs or comparisons between the efficiency of various linguistic or eclectic instructional models. A basic problem is that experimental designs, involving random assignment of children to control groups, cannot be maintained. There is always the pressure to allocate children with the greatest language deficiencies to the experimental treatment, and to remove children who become proficient to make place for non-English-speaking children as they arrive in the district. Thus it is difficult to judge the effect of different teacher attitudes in terms of their impact on children's performance.

With respect to the effects of programs to change teacher attitudes, the bulk of the effort has been tied in with changing the way teachers perceive minority and disadvantaged children generally. The programs directed specifically to language stereotypes usually employ a linguistic theoretical orientation. For example, Walker (1973) demonstrated that teachers trained in an experimental sociolinguistic module had more positive attitudes toward linguistically-different children than those in the regular teacher training program. Thompson (1973) also found that a course in linguistics developed a more positive attitude toward Black dialect speakers. But Hubble (1972) found no measurable attitudinal differences in a group of prospective teachers who were given a 10 week series of seminars on the teaching of culturally-diverse learners, as compared to a control group without this experience.

Summary Guidelines for Effecting Attitude Change with Respect to Language Differences:

- Teachers need to recognize that dialect speech is a complete and linguistically valid system of communication.

- Children who use dialect speech should not be made to feel inadequate or inferior.
- Teachers must become aware of how ethnic group membership shapes the child's world, and that children's learning can be adjusted to take different environmental backgrounds into account.
- A key concept for the teacher of linguistically-different children is that there are a variety of acceptable language systems. The Standard English taught in the school setting is but one of these.
- There are still many educators and parents who feel that the foremost concern in the education of the non-English speaking child is the development of facility in English, even if at the expense of the native language. Changing such attitudes is not an easy matter. It takes a well-planned, long-term program and a great deal of patience and perseverance.
- Even where progress is made in the first burst of enthusiasm, there will often be discouragements and reversals, as children fail to achieve at the over-optimistic levels predicted.
- To be successful, a bilingual program must have the active cooperation of all the participants - children, parents, and teachers. It is imperative to develop this broad support base before inaugurating the new approach. Only those teachers who demonstrate an openness to the potential of the program and the pupils should be allowed to participate.
- Preservice and inservice teacher training should continually stress the values of cultural diversity, and the over-riding necessity to foster positive self-image in all children.

Student Attributes - Level of Ability

Definition of Problem: Perhaps no other student attribute has been so frequently examined as a separate entity as that of ability or intelligence. For years we have been giving children intelligence tests as if intelligence were an independent aspect of their life functioning. Only comparatively recently have we begun to accept the notion that intelligence is not an immutable characteristic, and that the circumstances of environment and learning opportunities are highly influential in determining the level of actualization. And in the network of formative stimuli, the attitudes of the teacher are extremely important. As a result of this new orientation, a flood of literature on teacher expectancy effects has reached a peak within the past decade.

While there had been some degree of recognition of the effect of teacher attitudes on the evaluation and performance of students before the work of Rosenthal and Jacobson, their demonstration of a "Pygmalion" effect became a rallying ground for those who were particularly sensitive to the traumatic effects of biased teacher attitudes on the learning of disadvantaged or ethnically-different children. Ekstrom, et al. (1974) and Finn (1972) have provided excellent critiques of the research studies in this area, so only a brief review will be presented here.

A particular feature of the "Pygmalion" study is that a set of false data is surreptitiously fed to a group of teachers. The researcher obtains pre- and post-measures on some basis other than the true objective of the study, and determines whether there were greater achievement gains made by previously low achieving students who are described as having untapped potential, or "late bloomers." Some researchers have attempted to replicate the Rosenthal and Jacobson findings, while others have critiqued the statistical handling of the original data (e.g. Ekasoff and Snow, 1970). Only a very few of these have been supportive (e.g. Rubovitz and Maehr, 1971). In general, the idea that teachers' evaluations of children and their behavior towards them are appreciably affected by a test score has been seriously questioned (e.g. Finn, 1972; Fleming and Anttonen, 1971; Goldsmith and Fry, 1971; Jose and Cody, 1971; Pellegrini and Hicks, 1971; Persely, 1973; Schwartz and Cook, 1972; Saunders and DiTullio, 1972; and O'Connell, Dusek, and Wheeler, 1974). Wilkins (1972) reviewed 10 studies between 1968 and 1972 which failed to demonstrate the Rosenthal and Jacobson effect. Currently, many investigators feel that the model is naive and unproductive, and that more carefully designed experiments are needed to identify the variables which influence teacher expectancies.

It seems quite likely that the knowledge of test scores may serve as a reinforcement for the teachers' own judgments of the students' behaviors. Where the teacher has observational data which contradict the test scores, appraisal of student achievement potential is more apt to be based on the teacher's own expertise (e.g. Beggs et al., 1972; Jose and Cody, 1971; and Lawlor and Lawlor, 1973). Kohn (1973) explains the contradictory expectancy findings as due to the variables intervening between the time the teacher is given the information and the posttest evaluation. How the teacher uses the critical information, i.e., the actual behavioral expression of the teacher's attitude, determines how much gain in child achievement will result (Good and Brophy, 1974; Mendoza, Good, and Brophy, 1971).

A traditional way in which teachers' expectations of their students' performance has been expressed is in terms of ability grouping. "Ability grouping" is usually used to describe a system of organizing children of approximately the same age and level of achievement for instructional purposes. It does not apply to the common practice of having, for example, three or four reading groups in the same classroom. Findley and Bryan (1970), in a definitive work on this topic, have

described a wide variety of criteria or techniques for grouping children. Some of these they find completely unacceptable for a number of reasons.

Ability grouping, in general, tends to perpetuate socioeconomic and ethnic differences. Placements are made on the basis of standard achievement tests, which are apt to penalize children from minority groups (Wilder and Blumner, 1972). Furthermore, while the value of grouping for high achieving children has not been established, there is definite evidence that it can be detrimental to average or low-achieving children. Yet, in spite of its uncertain cognitive benefits and its recognized harmful effect, ability grouping has the unqualified support of most teachers. And usually, those teachers who advocate this procedure prefer to teach the average or superior classes rather than the low achievers (Bosco, 1971).

Effecting Attitude Change: Our literature review has not turned up any training programs specifically directed at changing teachers' attitudes toward student abilities, per se. There is, however, a rich source of experimental evidence, from the intervention programs in early childhood and with disadvantaged populations generally, that scores on intelligence tests can be modified considerably, as a result of early stimulation. This type of information is an important feature of the programs designed to change teacher attitudes toward disadvantaged and minority children, which we have discussed earlier.

Student Attributes - Sex

Definition of Problem: Throughout the history of public education and in the popular literature, there is a prevailing belief that girls are better students, and are preferred by teachers. While there is little reason to doubt the presence of such notions among the general population, it is important to determine whether there is sound research evidence of sex-stereotyping in the school setting. In this section we shall address three questions:

- Do teachers have stereotypic attitudes toward boys and girls?
- Do such stereotypic attitudes lead to differential expectations for academic achievement?
- Do teachers' gender-related biases affect the quality of instruction so as to militate against an equal opportunity for the acquisition of academic competencies?

There are any number of studies which indicate that sex stereotyping is an important determinant of differential teacher attitudes. Teachers generally prefer students who are conforming, obedient, compliant, quiet, studious, and passive. These traits are rated positively, whether demonstrated by boys or girls, but they are more frequently considered feminine attributes. It is thus no surprise that preservice

teachers have negative attitudes and expectations of boys even before they enter the classroom. And their negative stereotypes are further reinforced when they begin teaching (Dempsey, 1973). Zach and Price (1973), who have reviewed the major research in this area, find that boys receive more teacher disapproval than do girls.

The teacher's sex-related attitudes are considered most critical in the teaching of reading. Felsenthal (1971) reports that teachers see the behavior of boys as significantly more negative than that of girls. Boys are criticized more often and receive significantly lower reading achievement scores. But both boys and girls who are rated as aggressive and hostile by the teacher receive low scores. Furthermore, boys who were rated as having reading readiness scores equivalent to those of girls at the end of kindergarten, by the end of first grade were rated as having significantly lower reading achievement. Palardy (1970) found that boys whose teachers expected them to do poorly in reading had lower reading achievement scores than boys whose teachers had neutral or positive preconceptions. The attitude of the teacher was the significant variable in these studies.

Observations of teachers' behavior with two groups of girls, one group perceived as conforming and orderly, the other as active, assertive, and non-conforming, revealed that the girls who reflected the social stereotype were given significantly more praise and encouragement. It was even more interesting to find that the teachers were apt to view the girls in the latter group more punitively than they did boys who demonstrated the same behaviors (Pellegrino and Williams, 1973). However, Halperin (1971) found that male students who were perceived as "more feminine" received higher grades and better marks in conduct.

Further research indicates that teachers accord preferential treatment to high achievers with dependency behaviors, regardless of gender. This is congruent with the teacher's professional and personal values for girls. With boys, there is dissonance between these two value systems; the high achievement is valued professionally, but the dependency behavior is considered an inappropriate male behavior (Levitin and Chanalane, 1972).

When girls have academic problems, they are given more attention by their teachers than boys with similar learning difficulties. Yet teachers are more apt to attend to the personal-social problems of the boys. In general, teachers are willing to work with children demonstrating undesirable characteristics such as below average ability and poor grooming. They are very hostile to the acting-out, independent, assertive child (Helton, 1972).

Several researchers, while acknowledging the strong relationship between sex-linked teacher attitudes and reading achievement, indicate that these perceptions may have a valid behavioral base (Doyle, Hancock, and Kifer, 1971). In a series of studies (Good and Brophy,

1969, 1970; Good, Sikes, and Brophy, 1973) the interaction effects of sex and classroom behavior have been noted. Over the course of 10 instructional hours, the behaviors of male and female teachers with male and female students were observed. There was no difference in the types of interactions on the basis of either the sex of the teacher or that of the student. In reading groups, high achievers of either sex were given preferential treatment. It was true that boys received more criticism over all areas of the classroom, but this was directly correlated with the frequency of disruptive behavior. Good and Brophy (1969) comment that the fact that girls learn to read faster than boys cannot be traced to sex-biased teacher behaviors.

Closely related to sex, another student attribute which affects teachers' attitudes is that of physical appearance. Teachers in poverty schools often form negative attitudes toward dirty, unkempt, and smelly children with runny noses. And Clifford and Walster (1971) have demonstrated experimentally that teacher expectations are significantly higher for the attractive child.

Effecting Attitude Change: In our literature review we found no research or demonstration programs which attempted to modify teachers' attitudes toward sex-based discrimination in the classroom. But the current emphasis on equality for women in general, and for doing away with sex-based stereotypes in the home and in the world of work, have undoubtedly had an influence on making teachers more aware of the subtle ways sex stereotypes are perpetuated in the classroom. Education for Survival (1973) summarizes one year's efforts to examine sex role stereotypes in elementary and secondary schools, and includes the report of a national conference on this topic.

Other researchers have attempted to make teachers more aware of unconscious sex-stereotyping engendered by the way male and female roles are presented in children's literature (e.g. Jacobs and Eaton, 1972 and Singh, 1973). Chasen (1974) has called attention to the striking finding that while teachers believed that there was complete equality in their treatment of boys and girls, sex role stereotypes appeared in all areas of the classroom.

Summary Guidelines for Effecting Attitude Change with Respect to Ability and Sex of Students:

- The attitude of teachers toward students of different backgrounds is an important determinant of the extent to which their potential will be realized.
- It is not the teacher's attitude itself which fosters or inhibits the child's growth, but what these beliefs and expectations imply in terms of the learning opportunities offered and reinforced.

- Teachers must be made aware of the numerous sources of sex stereotyping in the texts and activities available to all students.
- Ability grouping tends to freeze low-achieving children into permanently limiting tracks. A far more constructive procedure is to provide each child with an individualized program to remediate deficiencies and enhance special abilities.

Student Attributes - Classroom Behavior

Definition of Problem: Throughout the previous discussions of teacher attitudes toward various characteristics of students, there are recurrent references to the interactions between the way children behave and how teachers feel about them and the expectations they hold for their academic success. Even teachers who have strong negative prejudices against poverty children and members of ethnic minority groups will modify their behavior if the student's deportment is more consistent with the teacher's perceived ideal. In making such judgments, the teacher's basic personality characteristics, and the way the teacher role is perceived, are of critical importance.

A relatively new approach to the study of classroom management stems from the work of Willower, Eidell, and Hoy (1967). These investigators (see also Dobson, Goldenberg, and Elson, 1973; Packard and Willower, 1972) have developed the concept of pupil control ideology, which relates personality traits of dogmatism and closed-mindedness, and their opposite poles of liberalism and open-mindedness, to pupil control behavior. The behavioral continuum ranges from custodialism to humanism. Custodial teachers view the students as irresponsible, undisciplined, and needing strictness and punishment. Teachers at the humanist pole see students as capable of self-discipline, and worthy of a high degree of autonomy (Helsel, 1971, 1974; Helsel and Willower, 1973). There is also consistent evidence that pupil control ideology affects the verbal interactions between teachers and students in the classroom (Rexford, Willower, and Lynch, 1972). Humanist teachers are more accepting and developing of student ideas, whereas custodial teachers are more apt to lecture, give facts, and be strict disciplinarians.

Coates (1972) also looks at teacher attitudes as they predispose behavior toward students' disruptiveness in the classroom. He conceives the following three categories: rigid, or authority-oriented; affiliation-oriented; and flexible, independent-oriented. The first group attributed more blame than either of the other two types to the student in situations where the student was represented as responsible for his own actions (for example, cheating or rough-housing), but not when there was no responsibility (for example, crying, getting hurt, etc.). This group also had a more controlling attitude and were more inclined toward

punitive solutions to problem situations.

More traditional approaches to classroom management are still concerned with the use of corporal punishment and other procedures for maintaining control over student behavior (Queer, 1971). Behavior modification techniques have demonstrated that student behaviors can significantly modify the teacher's response. Thus, as the student's behaviors become more appropriate, the teacher's attitudes become more positive (Sherman, 1971).

The way teachers respond to discipline problems is particularly important in ghetto schools. According to Goodwin (1973) teachers in Black schools are less likely to express hostility to parent participation, and to be less inclined to employ routine methods to control student behavior. As a group, teachers in ghetto schools are more apt to display custodial behavior, but it is the Black teacher who is more controlling than the White teacher. Where there are few rules for appropriate school behavior, teachers are more controlling and hostile.

Attitudes toward the classroom management of student behavior are related to the age of the teacher, with teachers over 40 years of age more liberal in many ways than teachers under 27 years of age.

Effecting Attitude Change: Inasmuch as attitudes toward classroom management techniques are closely related to basic personality characteristics, it is extremely difficult to bring about major changes in this area. Many of the sensitivity and group dynamics workshops attempt to deal with this problem. Other approaches offer teachers an opportunity to observe, and then to analyze and discuss, their own and other teachers' behavior on videotapes. It is assumed that, given an opportunity to examine their own teaching techniques and to form models of desired behavior, they will change their style of interacting with students in the classroom. Brown et al. (1972), who used this technique, felt that the solution to eradicating disciplinary practices detrimental to learning was to provide teachers with systematic instruction in classroom management.

According to Hoy (1967), most teachers equate good teaching with good classroom control. This investigator found that student teachers became more custodial or controlling during their first year of teaching, but no further change in this direction was noted at the end of the second year. In another study of student teachers, Fitch (1972) found no significant difference before assignment to either a Title I (poverty) school, and a non-poverty school. But after a year of experience, the teachers in the poverty program shifted considerably more toward rigidity than did those in the non-Title I schools.

Summary Guidelines for Effecting Attitude Change with Respect to
Student Classroom Behavior:

- Basic personality traits of teachers play an important role in determining teacher attitudes toward appropriate classroom behavior of students.
- Changing teachers' attitudes toward classroom discipline involves changing these basic traits. Because this is extremely difficult to achieve in a teacher training program, it is far wiser to attempt to select teachers whose own beliefs are consistent with those of the particular school ideology.
- Even highly structured classroom environments are susceptible to an individual teacher's system of control.
- A teacher with a dogmatic, rigid attitude toward classroom discipline will have a great deal of difficulty functioning in an open classroom environment.

CHAPTER 4

ATTITUDE TOWARD INNOVATIONS

Innovations: General Statement

While many changes have occurred in the course of the natural evolution of education, two important events of the past era have provided the basis for a general recognition that our educational institutions have failed to keep up with our social needs. The spectacular display of Soviet superiority in space technology shocked our government into an awareness that our best minds were not being sufficiently challenged. At the other extreme, the "War on Poverty" forced a realization that our educational system was short-changing children from economically-disadvantaged and ethnic minority homes. Out of these two sources of alarm came the realization that we found ourselves in this perilous situation because no one has ever placed on teachers the direct responsibility for an educated population. Teachers taught disciplines at various grade levels, not children; if students failed to grasp and assimilate what was taught, the fault was assumed to lie in the recipient, not the purveyor of knowledge.

These three circumstances have been the impetus for a wide variety of innovations. Perhaps the most visible and newsworthy have been those which relate to the organization of the schooling environment itself. Another group of innovations relate to the areas of curriculum and instructional methodology. In both types of changes, the major sources of inspiration and the decisions to install new ideas have come from outside the four walls of the classroom. University professors and researchers, military experts, or literary crusaders, have often convinced local boards of education of the validity of a particular panacea. Very seldom has the front-line soldier, the teacher, been admitted into the war councils. Too often teachers have been given what amounts to an ultimatum with, occasionally, a brief workshop or institute in which they were informed of basic ideological or methodological reforms. Little attention was paid to their attitudes or feelings with respect to the new arrangements or techniques.

For heuristic convenience, we have specified two categories of innovation: those applying to structural arrangements or responsibilities we have called Organizational Innovation; those applying to methodological changes in teacher behaviors in the classroom we have labelled Instructional Innovation. There are, of course, many interdependencies between these two types of innovation, and we do not intend to imply that a clear separation can be made.

Organizational Innovations - Open Education

Definition of Problem: Of all the changes which involve the structure of the conditions under which learning takes place, the introduction of the open classroom is undoubtedly the most dramatic. Under

this rubric there are a wide variety of models. The one which seems to have the most general acceptance received its recent impetus from the British Primary School, although it has many ideological roots in the progressive education promulgated by Dewey at the beginning of the century. In this respect, it is also closely related to the concept of individualized instruction, which we will discuss as an instructional innovation.

Although the open education model requires major changes in teacher training, arrangement of facilities, and instructional procedures (Pritchard and Moodie, 1971), it attracted a great deal of support from a wide variety of parents and teachers. It has been selected as one of the models in Head Start and Follow Through Planned Variations experiments, both of which are programs concerned with improving the education of disadvantaged children. Leonard and Gies (1971) have pointed out that the attitude of teachers toward disadvantaged children is far more favorable in schools having an open environment than where the traditional closed structure prevails. Open classroom teachers are also more satisfied with their jobs, they are more autonomous, and feel more influential in arriving at school-level decisions (Meyer et al., 1971).

Even teachers who enter an open classroom model with the highest of expectations may become disillusioned. Teaching in such an environment requires a great deal of technical skill, and informal socialization into the model is hardly sufficient (Zimmerman, 1971). Barth (1972) feels that the primary reason for failure is that administrators impose their own ideas on cultural groups which have quite different notions of the kind of schooling they want for their children. Parents of poor children are far more interested in acquisition of academic skills which will assure future professional success. Many of them feel that emphasis on humanistic values is but a subtle technique for maintaining the scholastic inferiority of Blacks and other minorities. The success of this model depends on administrators' fostering a high level of motivation and a positive attitude in both parents and teachers (Andreae et al., 1970).

To be effective in an open classroom the teacher must, according to Wlodarczyk (1972) be ready to accept beliefs and values which may be alien to ones established over a lifetime (for example, that there are many valid paths to learning, and there is no set of facts that must be transmitted to all children in the same way). Before assigning a teacher to an open classroom, Wlodarczyk recommends the following steps:

- Interview teacher to determine beliefs about certain aspects of teaching behavior.
- Observe teaching behavior within the natural school environment.
- Relate interview and observation data to determine the consistency between what the teacher says and what is done in the classroom.

Other investigators (e.g. Amarel et al., 1973) have emphasized that the teacher's beliefs and attitudes about educational issues are the most critical factors in either hindering or facilitating the implementation of an open classroom structure.

Effecting Attitude Change: Because of the circumstances mentioned, it is unrealistic to expect that open education can be installed and functioning within a limited time frame. Newman (1972) notes that the successful implementation of this system is a unique and gradual process. A smooth transition comes about with the learning of new procedures, especially those of classroom management. The teacher's attitude toward the teaching role must make this shift from the autocratic determiner of learning events to that of the "cooperative facilitator, sympathetic supporter, resource person, diagnostician, and available and knowledgeable aid." As a matter of fact, McCauley et al. (1972) feel that a brief workshop-type training is of little value in effecting an attitude change. In their opinion, inservice, demonstration experiences in the classroom are far more helpful. And even here the personality of the teacher is a determining factor. Several helpful guidelines for developing a positive attitude are provided by Kleparchuk (1970):

- Staff members should focus on cooperation, involvement, collaboration and communication in their daily interactions.
- Principals should give teachers more responsibility and authority for making decisions which directly affect teaching and learning.
- Classroom visitations as a supervisory technique should be avoided.
- Inservice training should place emphasis on demonstrations in the teacher's own classroom.
- Principals should help teachers achieve a sense of worth and dignity in their work.

Organizational Innovations - Staffing

Definition of Problem: There have been three major changes in the way teacher functions are conceived. These include team teaching, differential staffing, and sharing of responsibilities with paraprofessional aides. The latter innovation is most closely related to the attempts to serve more adequately the children from disadvantaged and minority populations.

Many teachers feel that they would like to have the assistance of aides, but this feeling is more prevalent among teachers who have never had aides than with teachers who have, according to Canady (1972). This investigator also finds that experienced teachers use paraprofessionals

as educational materials developers. Such non-instructional tasks are given greater priority than working with children in academic skill areas. Canady feels that the greatest need is for teachers to develop more collegial attitudes toward their aides and to work with them as a team. Teachers who perceive aides as colleagues use them more effectively than those who look upon them as subordinates (Thorlaciuss, 1969).

In the compensatory education programs where they have been extensively employed, paraprofessional aides are regarded most positively by teachers. Teachers are able to distribute their time so as to provide more attention to the needs of individual children (Coleman, 1971; Jacobson and Drije, 1973; Sciarra and Jantz, 1972). Not only do teachers with aides have greater job satisfaction and more positive attitudes toward teaching (Jackson, 1972), but working with an aide who is a member of the minority group encourages the development of a more positive attitude toward the children from that population (Kulaga, 1971).

Bilingual education programs find that community aides, who are able to speak the language of the children while the teacher cannot, are indispensable to their success. Yet at first the teacher may feel inadequate and threatened by the dependence upon an aide for instructional facility in the second language. The clear delineation of role functions is an important problem (Barba, 1973; Giacuinta et al., 1972).

A great deal has been written with respect to team teaching, but there is relatively little research specifically on the question of the teacher's attitude toward this innovation. Most reports consist of subjective reactions of a positive nature (e.g. Arikado and Musella, 1973; Johnson and Johnson, 1972; Wilbur and Gooding, 1973). Two investigations are representative of a more analytic examination. Gallessich and Iscoe (1972) stress the need for administrative support and sanctions to provide an environment in which the innovation can be sustained. The research reported by Shaw, Strabel, and Reynolds (1973) indicates that teachers may begin the year with a favorable attitude toward team teaching, but this becomes more negative as the year progresses. This negative shift was more marked with the newer teachers; more experienced team members demonstrate far less change in their attitudes. However, the researchers emphasized that the maintenance of a favorable attitude was facilitated by the support of other group members.

At a time when there was a serious teacher shortage, or insufficient teachers with special skills such as those required in a bilingual program, a number of districts introduced the concept of "differentiated staffing." In this way one master teacher provided the leadership for a group of professional and paraprofessional staff serving as many as several hundred students. The various credentialled teachers were given responsibilities in their areas of expertise, and had the assistance of one or more aides. The system differs from team teaching in that it involves a hierarchical relationship, with differential salary as well as responsibilities.

English (1971) surveyed almost 1000 teachers and found a generally negative attitude toward this procedure among female elementary level teachers. The degree of negative feeling increased with years of experience. On the other hand, Essig (1972) reported a school reorganization, involving changes in numerous instructional components, which produced an increase in positive attitudes toward the school.

Effecting Attitude Change: Most of the compensatory programs which employ paraprofessional aides have, over the years, developed excellent training procedures. An integral part of both preservice and inservice training is an emphasis on developing more favorable attitudes in teachers toward the aides in the classroom (Axford, 1968; Barsch, 1969). Here, as elsewhere, brief cognitive programs which emphasize skill development do not provide ample opportunity for significant personal changes to occur (Liston, 1972). To maximize the effectiveness of any training program, there should be cooperative involvement of both the teachers and the teacher aides in planning an on-going series of activities. Coleman (1971) also feels that the careful and committed leadership of an experienced change agent is required.

Organizational Innovations - Scheduling

Definition of Problem: Several suggestions which depart from traditional schooling schedules have been given careful consideration. For example, alternatives to the two semester system, many of which involve the use of school facilities during the total calendar year, have been advocated and have found strong support among teachers (e.g. Bentley, et al., 1969; Ernst, 1971; Schmid, 1971; and Year Round Schools, 1972). Elementary teachers have liked the trimester plan, but secondary teachers favor returning to the traditional semester format (Evans, 1971). A number of investigators have reported teacher support for the 45-15 schedule (Gore, 1971; Henson, 1970; Lahaderne, 1972). The report of the McKinley High School Quarter System (1971) indicated that, after two years, 57% of students, teachers, and administrators favored the plan while 27% were opposed to it and 16% were still undecided.

Another type of innovation concerns the starting date for the school term. Bendat (1974) reports that approximately 90% of teachers supported a school year which would begin August 19 and end May 30. Alternatively, if schools were open on Saturday, the calendar would be from August 29th to May 31st. Many teachers expressed preference for this type of schedule.

Organizational Innovations - Motivational Procedures

Definition of Problem: While not precisely concerned with the organization of the school, several innovational practices address the complex issue of increasing teacher motivation for more effective schooling. These have taken several forms. One which has received a great deal of attention is the concept of accountability. Under this system,

teachers are evaluated in terms of the achievement of their students. Several investigations attempt to determine the attitudes and reactions of teachers not only to the concept but also to the procedures involved. Wolfe (1973) reported that teachers perceived accountability as a method for weeding out incompetent teachers rather than as a basis for rewarding good teachers. It was also seen as a way of demonstrating to parents that schools were really concerned about their children's academic achievement. Teacher training programs have not prepared teachers to deal with an accountability system, and many of them insist that such a procedure is dehumanizing (Herndon, 1974).

There is great variation in teacher attitudes toward this issue. It is interesting, as Talmage and Ornstein (1973) point out, that the more secure teachers, i.e., those in suburban schools as compared to those in inner city schools, tend to have a more positive attitude. In addition, it has been noted (House, 1972) that most teachers are hostile to this type of evaluation at the outset, but are later able to see the value in terms of improved achievement of the students. Finally, Horton and Bryan (1971) speculate that accountability may increase a teacher's sense of effectiveness and professionalism. They recommend that preference be given less experienced teachers when candidates for contract learning or highly structured programs are being sought.

Other investigators have found that teachers have a positive attitude toward assessments which provide feedback as to the performance of the children, in a manner that helps them improve their instructional procedures (Stern, 1969; Thompson, 1971).

Incentive systems for increasing the rate of achievement of learners are closely related to accountability and teacher evaluation. Performance contracting and voucher systems have enlisted the enthusiasm of educational entrepreneurs, but they have failed to obtain the support of the teaching profession (Megel and Bhaerman, 1971). Several of the early performance contracts reported outstanding achievement gains, but more recently the outcomes have been extremely modest. Rapp (1971) reported average gains well below that which had been expected. He also notes that there was no observable impact on school attendance. One positive outcome was that teachers became more concerned with diagnosing the child's performance in terms of the skills needed, and then prescribing instruction to meet these needs.

Similar failure to meet expectations from a performance contract was reported by Dembo and Wilson (1972). Only 13% of the students met the achievement criterion, and the attitudes of the teachers were extremely negative.

Effecting Attitude Change: Few educators have evinced a need to develop training programs to change teachers' attitudes toward innovative motivational approaches. Perhaps this is due to the fact that we take for granted that any procedure which increases positive attitudes

toward student achievement would meet with general approval. As for reducing teacher anxieties toward accountability systems, perhaps the power sources which institute assessments depend on the weight of authority to insure compliance. Whatever the reason, we have not come across any reports of efforts to change teacher attitudes in this area.

There has, however, been a great deal of attention given to democratizing the decision-making functions in the educational hierarchy (e.g. Belasco and Alutto, 1972; Coughlan et al., 1972; Cronkite, 1973; Ford, 1971; Kiamie, 1973; Lynch, 1971; and Wick and Beggs, 1971). Training programs have been instituted to influence teachers to become more active in decision-making in their school systems. McClure (1973) used small group procedures to increase the level of teacher participation, and McGuinness and Masters (1973) initiated a similar program with students and teachers. Involving teachers at critical decision points will have an important impact in determining the types of innovative practices and reorganizations of the teaching environment which will be accepted even on an experimental basis.

Summary Guidelines for Effecting Attitude Change with Respect to Organizational Innovations:

- Teachers who participate in organizational innovations must be ready to alter many existing attitudes about educational procedures.
- Before selecting teachers for an innovative organization, make sure by interviews and observations that the candidate is really ready to institute the changes required.
- It is unrealistic to expect a radically different educational environment to be installed and operative within a short period of time. A gradual transition should be anticipated.
- Techniques of classroom management are even more important when a new system is to be implemented.
- Inservice training should be provided, with leaders experienced in serving as change agents.
- Most teachers are threatened when asked to share their classrooms with aides, or their responsibilities with other teachers. Constant approval and support from supervisors and colleagues enhances the likelihood of a successful change effort.
- Clear delineation of role functions will make changed responsibilities less confusing.

- Teacher attitudes toward the value of differentiated staffing arrangements, team teaching, or the use of paraprofessionals, will be more positive if special advantages are experienced in the new situation.

Instructional Innovations - Individualization

Definition of Problem: Dedicated teachers have always complained that there is never enough time to deal with the problems of individual children. In this sense, the concept of individualized instruction is not new; it is the manner or arrangements provided for instituting the individual interactions which constitute the innovations. These can range from an open education approach in which each child is given complete latitude to select and design a unique program according to individual needs and interests, to an extremely formal system of behavior analysis where a diagnostic approach is used to specify a program of performance objectives, also based on individual needs.

There is a basic philosophical difference between these approaches, both of which subscribe to the importance of individual differences. The first has its major focus on the individual child. A basic tenet is that there is no inherent value in acquiring any particular body of knowledge, during any specified period of development. The bulk of the work now considered under the aegis of individualized instruction does not fall into this category, although the semantic confusion engendered by the similarity of the terms has created some conflicting attitudinal reactions in teachers.

Most research with programs such as Individually Prescribed Instruction, Individually Guided Instruction, or Individual Progression, have many surface similarities to the open education approach, but they are primarily oriented to conveying a specific curriculum, especially in math, reading, and language. Recently, higher order skills of problem solving and creative thinking have been added, but the idea is still to break the content and behaviors into small sequential units, to keep detailed records as to each child's placement in this preconceived hierarchy, and to provide each child with materials and experiences which will facilitate attaining the criterion behaviors. In essence, the only major freedom is on the time dimension - that is, all children are expected to acquire the same competencies but they have a measure of leeway as to the length of time or number of experiences required to achieve the goal.

When queried, teachers generally express favorable attitudes toward the various programs which employ the concept of individualization. The study of Individualized Instruction in a Prototype School (1972) provides a detailed background in the process of implementing the IPI model, including the procedures by which the teachers and supporting personnel were trained. The findings indicate that the students who had been in

the IPI program for at least three years achieved significantly better than those who did not have the program. There were fewer discipline problems, and emotionally disturbed children adapted well to the IPI techniques. As a consequence, teacher attitudes were definitely favorable.

Kelley et al. (1973) studied the effect of Individually Guided Education on teachers' perceptions of school climate. The finding which is of particular relevance to our own concerns is that a well-implemented IGE program was associated with a stronger emphasis on developmental growth and a decrease in control press. These effects were most notable in teachers who were in the second year of the program, but there was a slackening of the impact during the third year.

Effecting Attitude Change: Many researchers report studies aimed at developing positive attitudes toward the various individualization programs. One of the most comprehensive of these is the California Teacher Development Project (1973). The training consists of components based on individual teacher needs, including performance criterion tests, statements of objectives, alternative learning options, and carefully selected resource materials. The major goal of the program is to provide teachers with the skills they need to function efficiently in individualized instruction models.

Training techniques are extremely eclectic. There is the dissemination of information at the cognitive level; experience in regional sites for demonstration and visitation; inservice training in specified districts; implementation and monitoring of the inservice programs; providing technical assistance to districts interested in adopting individualized instruction, and evaluation of the diffusion process and the outcomes of the inservice programs. The evaluation of the project considers the three aspects of the training: acquisition of cognitive knowledge about systems of individualized instruction acquired; development of positive attitudes toward implementing individualized instruction; and retention of positive attitudes after the conclusion of the training period. The findings indicate successful attainment of all these objectives.

In a summer workshop (Designing a Campus Plan for Quality Education, 1972) teachers and administrators from 13 schools were trained in individualization by writing Learning Activity Packages (LAP). They also developed skills in writing behavioral objectives, test items, diagnoses, etc. After their training in the workshop, the teachers trained the faculty of their own schools in these techniques. The subsequent evaluation showed extremely favorable teacher reactions, and the model has been adopted by several neighboring educational agencies.

Favorable results were also reported by Dell (1972) and Mohan and Hull (1972). However, Kallenbach (1973) found that teachers who participated in a similar type of workshop did not perform as well as a

comparison group on either cognitive or attitudinal measures. Nevertheless, the evaluators felt that the workshop had been successful in disseminating information.

Individualization techniques have also been used in teacher education programs. For example (Lyons et al. (1974) describe an individualized, performance-based program, called Management by Objectives (MBO), to motivate and reward professional growth while accommodating differences in abilities, attitudes, and skills. The participating teachers perceived MBO as encouraging and facilitating their growth, in addition to helping them achieve their instructional objectives for their students.

Instructional Innovations - Behavioral Objectives and Behavior Modification

Definition of Problem: These two topics have been grouped together because they both adopt a systems approach to the teaching role. They have also, to varying degrees, generated divisive emotional reactions.

Specification of behavioral objectives and the incorporation of a more operational, objective attitude toward the educational process has been associated with the need to specify performance in military training programs (Vocational Instruction Systems, 1971). It represents a philosophical orientation which is alien and antipathetical to many traditional teachers, who tend to place high value on affective, motivational-emotional behaviors, even though these attitudes are inconsistent with their classroom behaviors (Kaya and Woog, 1972). A distinctive characteristic of behavioral objectives which has created a great deal of criticism is the successive analysis of behaviors into smaller and smaller units (McClure, 1973). This is closely related to a second major source of criticism, i.e., that specifying outcomes in behavioral terms places an inordinate amount of emphasis on information and skill learning. Both of these characteristics clearly relate to the fact that teachers of subjects which stress humanistic values, such as English and literature, are particularly antagonistic to behavioral approaches (Ulin, 1971).

Even more highly charged emotional reactions are associated with behavior modification. From the point of view of the behavior analyst attempting to produce a more favorable environment for learning, this opposition can become highly irrational (Greiger, 1972). To a large extent, negative attitudes toward behavior analysis principles may be due to the words themselves, not the procedures employed. In a survey in which behavioral techniques were described, over half of the respondents indicated that they used the procedures, and that there was nothing inherently "unethical" in them (Frey, 1972). Yet many people still believe that "operant conditioning" or "behavioral engineering" are inhumane systems for brain-washing children. It has also been pointed out (Vane, 1972) that many teachers are inept in adapting behavior modification

methods. Most teachers give more attention to the disruptive children and ignore those who are demonstrating desirable behaviors.

Programs based on behavioral objectives, as well as behavior modification models, tend to utilize criterion-referenced tests for assessing student achievement. This is quite natural since the focus of the instruction is on specifically described behaviors, not adequately sampled by standard achievement tests. For example, Knipe and Krahmer (1973) describe a test program keyed to a hierarchical set of approximately 50 objectives and 40 individualized student contracts. Once teachers have overcome their fear that criterion referenced testing is a way of evaluating their own effectiveness as teachers, rather than the students' level of acquisition, they develop more positive attitudes towards this testing procedure as compared with norm-referenced testing. Elsnor (1973) also reports that 96% of teachers feel inadequately prepared to deal with criterion referenced tests during their first year of using this assessment approach. Appropriate cognitive inputs are sufficient to change teacher attitudes in this case.

Effecting Attitude Change: Because of the controversial nature of these innovative procedures, and because these systems approaches have been measurably successful in producing achievement gains in young children, many investigators have been concerned with producing more positive attitudes toward their use.

No relationship between knowledge of and attitude toward behavioral objectives was found in a study of English teachers carried out by Thompson (1972). Reading informational texts had no measurable effect on attitudes toward the use of objectives. Neither did inservice training which stressed cognitive aspects of behavior specification. As a matter of fact, the English teachers with the most knowledge about behavioral objectives were the most negative and opposed to their use.

Somewhat more positive outcomes from an inservice workshop were recorded by Tamminen (1970). Teachers who were taught to develop innovative curricula based on specific behavioral objectives demonstrated a significant gain in ability to identify, evaluate, and write behavioral objectives themselves. They also demonstrated a more positive attitude toward teaching - but there were many lingering doubts and criticisms from the humanistic point of view.

According to Martin (1974), appropriate training programs, which provide increased familiarity with reinforcement techniques for classroom management and an increased understanding of the motivational basis for learning, have made many converts to behavior modification systems. The training itself involved a kind of behavioral engineering. Trainees observed demonstrations of various goal behaviors and then practiced these behaviors themselves. Lectures, discussions, written materials, and assignments followed each observation and practice session. Substantive content of the course included: use of reward and punishment;

reasons why children behave as they do; and use of written records in day care centers. At the end of the training, many of the participants expressed a positive change in attitude toward behavior modification principles. They also became more aware of the necessity for keeping accurate records but developed little competence in record-keeping, and remained negative toward this extremely important aspect of behavior modification.

Summary Guidelines for Effecting Attitude Change with Respect to Behavioral Objectives and Behavior Modification:

- Prior to accepting a teacher for a behaviorally-oriented program, there should be a careful assessment of whether personality and attitudinal characteristics indicate openness to adopting non-traditional materials and procedures.
- Care in selection of teachers is even more critical when concepts and techniques antithetical to accepted practices are being instituted.
- Programs based on behavior modification principles can be expected to arouse a great deal of emotional resistance.
- Implementation of behavior modification systems requires the development of strategies suited to the individual teacher's existing attitudes and teaching style.
- Young teachers with some experience (rather than beginning teachers or those with many years of experience) are more likely to adapt to a behavioral analysis teaching model.

Instructional Innovations - Educational Technology

Definition of Problem: As successive breakthroughs in communication technology occur, they are adapted to the service of education. And yet, in spite of the fact that a course in audio-visual education is part of the standard teacher training curriculum, Donaldson (1970), in a survey of over 200 highly-rated high school teachers, found that less than one-fourth of them had had, as undergraduates, any instruction in the use of media. His survey also revealed the following: tape recorders, overhead projectors, and other audio-visual equipment were readily available, but they were seldom or never used; teachers rarely used audio-visual technology as a means of individualizing instruction; the only communication tool employed consistently in all classrooms was the bulletin board; and many teachers felt that they would be more apt to use A-V techniques if they had more instruction. Overall utilization of media is greatest in the early grades (where it often serves a "baby-sitting" function), gradually decreasing with grade level (Sussman, 1973).

For a long time, high costs made it impractical to use television in education. But recently there has been an increase in available funds and a decrease in the price of a TV set, and television has become a widely accepted medium of instruction. This may take several forms. Instructional Television (ITV) or Educational Television (ETV) involves projection from a central TV studio. Evaluations of popular, nationally supported programs such as Electric Company (Liebert, 1973) and Sesame Street (Ball, 1970) focus on the academic gains of children. And since teachers generally have favorable attitudes toward innovations which foster learning in their students, there is good reason to believe that there is a positive attitude toward this use of educational television.

There are, however, many teachers who are unhappy with ITV or ETV because they cannot control the time or pace of the presentations to accommodate their classroom needs (Sussman, 1973). Lack of control over the televised lessons, and unflattering comparisons with highly competent and attractive TV instructors, make many classroom teachers feel a loss of status, resulting in an impaired teacher-student relationship (Kirkorian, 1971). A large number of early childhood educators are opposed to the use of TV because the programs provide a passive learning experience.

Closed circuit television (CCTV) offers somewhat more flexibility, but the cost of maintaining their own broadcast facility is beyond the reach of many school districts. Furthermore, teachers are not over-eager to spend their own time to produce materials for CCTV presentation, nor are these materials likely to be up to professional standards (Hawkins, 1973). Certainly they are not in the category of expert TV programs, such as Other Places, Other People, or Wild Kingdom, to cite but two of the exciting shows available on commercial television.

ITV and CCTV have been widely used in areas where educational facilities and qualified teachers are not readily available. Reports of the experiences with this medium in Samoa and El Salvador (Schramm, 1970, 1971, and 1972) and in Australia (Hawkins, 1973) indicate somewhat conflicting teacher attitudes. There is some evidence that teachers are highly favorable in the early years of use, but as teachers become more skilled and professional they begin to feel impatient with the centralization of the broadcasts and want to have more individual control over their educational procedures.

Another recent application of television in education has been in bilingual programs. Again because of the shortage of teachers, the presentation of instructional content can be supplemented through television. To evaluate its effectiveness, A Summary of Formative Research in Bilingual Children's Television (1973) was carried out. Approximately 500 parents and teachers, and over 800 children in eight cities were consulted. Data show that more than 90% had positive attitudes toward the programs and felt that they fostered cross-cultural understanding, in addition to promoting academic competencies. These findings were confirmed

by Van Wart (1974) and Williams (1972). Similar results were reported by McRae (1972), who additionally noted that teachers possessed of a high degree of bilingualism themselves had the most positive attitudes.

Videotaping equipment is now being widely used in educational contexts. This medium is especially valuable in teacher training. At first teachers are self-conscious and resentful at being videotaped because they fear their inadequacies will be exposed. But, once convinced that they can erase the tapes at will, and that the observations are being used to improve their professional skills rather than for monitoring and evaluative purposes, the opposition soon evaporates. Teachers find they gain invaluable insights, not only about themselves but also about the behavior of individual students, as they observe the playback of a particular teaching sequence (e.g. Stern, 1970).

The most recent development in educational technology is in Computer Assisted Instruction (CAI). The extensive capability of the electronic brain offers vast potential for processing many "bits" of information. For example, the ease with which computers can sequence behavioral objectives, produce test items, and process each student's performance, greatly facilitates the record-keeping which is so essential in goal-oriented instruction (Allen and Gorth, 1969). Another important application of CAI, which makes it particularly appealing to teachers of disadvantaged students, is that the teacher can be released from a great deal of repetitive rote and drill work. The computer record bank makes possible the most effective form of individualized instruction, without burdening the teacher with the chores of testing, recording, and selecting appropriate sets of supplementary learning materials. This has the further advantage of diminishing some of the negative attitudes of teachers toward students who require remedial training (Gipson, 1971).

In spite of these advantages, Wightman (1970) is convinced that computer applications do not merit their tremendous costs. He also reports that teachers have a negative attitude toward the use of CAI because of its extreme impersonality. Furthermore, most teachers feel terribly inadequate in the face of the complex technology involved. And finally, professional organizations are opposed on principle to the use of machines for teaching children.

Effecting Attitude Change: There is strong evidence that the vast capabilities of technology are barely tapped in actual classroom use. It is quite likely that a great deal of this reluctance is due to the negative attitudes of teachers. Unfortunately, however, relatively few programs have been designed to train teachers in the constructive use of the TV medium, and thus to develop more positive awareness of its educational potential.

In a general discussion of technology in the public schools, Lipman (1973) presents several chapters which delineate the technological, social, and political forces which influence the utilization of

technology. Lipman addresses the problem of opposition from teacher organizations, who feel that the employment possibilities for their membership will be curtailed if the use of electronic teaching methods becomes widespread. According to this writer, the solution is to bypass school administrations and "build public preference for more effective, efficient educational technology through the dissemination of more accurate information."

The Media Utilization Project (1971) reports subjective data that teachers who are trained in the use of media use them more effectively and are more favorable toward their use. And Hoerner (1971), in an investigation involving video recording in teacher training, reports that the attitudes of the trainees were strongly supportive of the use of this technology in preservice and inservice education of trade and vocational teachers. Hawkins (1973) provided a workshop to make student teachers more effective in individualized instruction, through the use of CCTV. Very few of the trainees developed a more positive attitude toward the use of this technology, probably due to the fact that there was resistance to devoting the time necessary to develop appropriate instructional materials.

Summary Guidelines for Effecting Attitude Change with Respect to Educational Technology:

- An effective audio-visual school climate is dependent on strong administrative support.
- The personality and enthusiasm of the audio-visual coordinator exerts a strong influence on the development of positive teacher attitudes and an increase in use of technological aids.
- Simply providing access to television equipment does not guarantee that educational programs will be used extensively or appropriately.
- Color television does not add measurably to either learning effectiveness or attitudes toward the use of TV programs.
- Availability of TV guides and teacher manuals, explaining program content, suggested placement in the curriculum, and supplementary reading and materials, greatly increases the use and effectiveness of TV programs.
- Finally, as with all other innovations, the most important key to effective utilization of media is the attitude of the teacher.

CHAPTER 5

SUMMARY STATEMENT

A summary of many investigations, presented in Volume II, and by others such as McGuire (1969), and particularly, Kolesnik (1970) provides the basis for a number of suggestions regarding attitude change. The statements below refer to the process by which teachers' attitudes appear to undergo modification. Among those who might find some value in this summary are teachers who seek to modify their own attitudes in directions they, themselves, deem to be more productive.

1. Attitudes are more likely to undergo change in settings where the teacher feels an atmosphere of trust and openness. Resistance to attitude change is to be expected where there is a feeling on the part of the teachers that they are being exploited or manipulated without being given full information.
2. Active participation of teachers in a program where attitude change may be involved is important. Passive listening or simply reading does not create conditions of change as readily as does taking part in group discussion, role playing, or other social interactions.
3. A teacher's attitude toward a minority student group does not become more favorable simply through a teaching assignment with students from this group. Such an assignment may make the teacher even less favorable. However, if the institution of an innovative program produces dramatic achievement gains, positive attitude change can result.
4. The attitude of teachers, particularly practice teachers, might be most effectively changed through an activity involving a personal relationship with one or two children, especially if the relationship is an informal one, rather than oriented toward a formal task.
5. If a teacher's attitude is new or less intense, it may change when information relevant to the situation is encountered. This is especially true when the information is not strongly at variance with what the teacher already believes.
6. If a new attitude, when expressed through verbal statements or other behavior, is rewarded through such events as social support or teaching successes, it is likely to be strengthened and permanently acquired.
7. Joining a group which holds the attitudes and values sought is usually an effective way to foster desirable change. The attitudes held by a teaching staff constitute an important kind of influence upon the new teacher.

8. If a change, which implies a new attitude, is proposed by a person who is admired and respected, the teacher is more likely to adopt the new attitude than if the same change is proposed by someone with little status.
9. Intense emotional experiences, sometimes produced by conflict or confrontation, usually result in changed attitudes. There may be a risk involved, since such experiences may be counter-productive. Consequently, it may be desirable that such risks first be taken under simulated or role-playing conditions.
10. A teacher's attitude may change where opportunity is provided for critical self-examination of one's own beliefs and value assumptions. It is difficult to continue with glaring inconsistencies in one's own system of beliefs, attitudes, and behaviors.
11. A direct experience with the attitude object, calling for a change in one's own behavior, is more effective if the event is accompanied by an opportunity for reflection, discussion, and reading about the situation, with a group of others who are also concerned.
12. Attitude change is usually a long process involving many types of experiences, acquisition of information, emotional reactions, and consonant changes in one's behavior.